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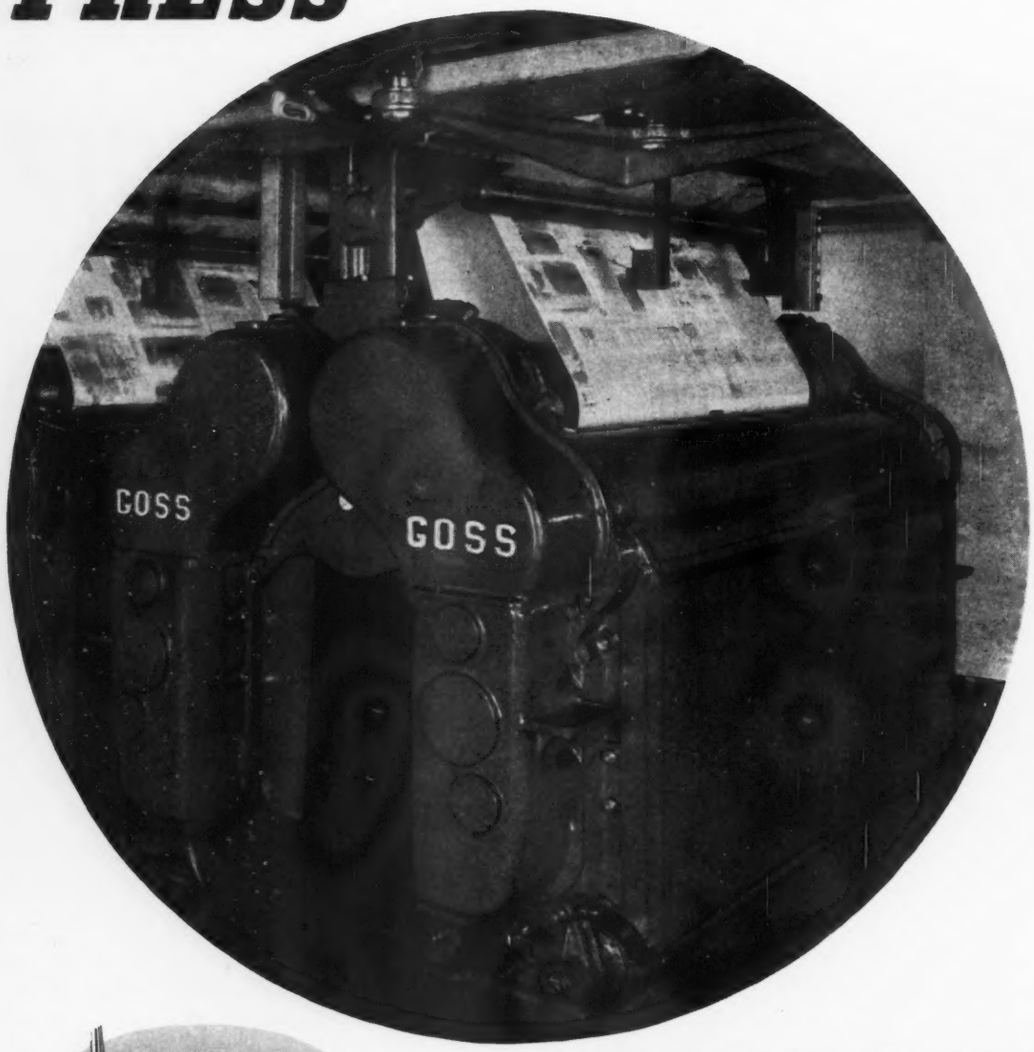

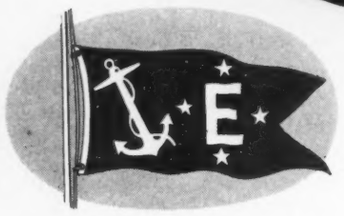

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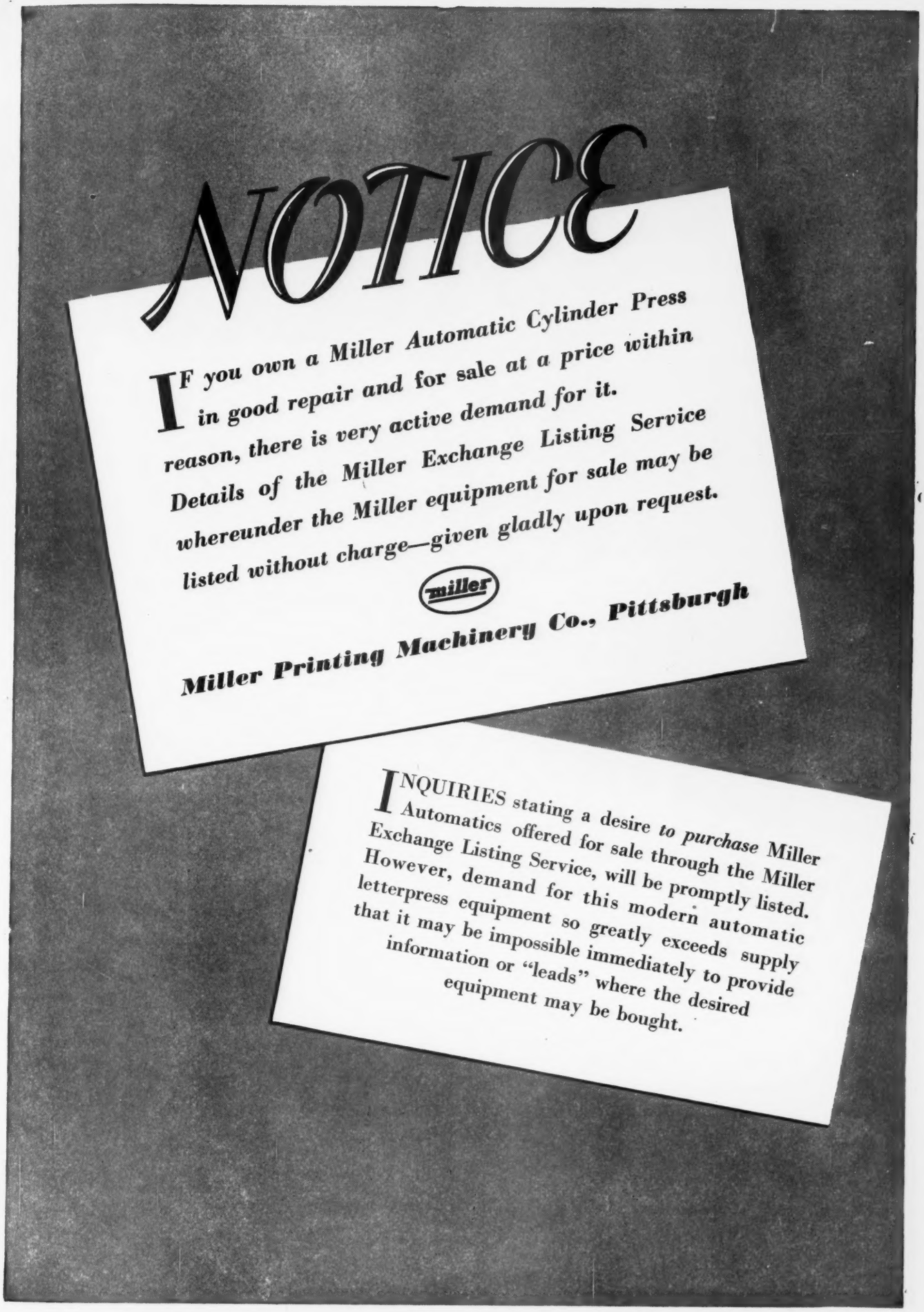
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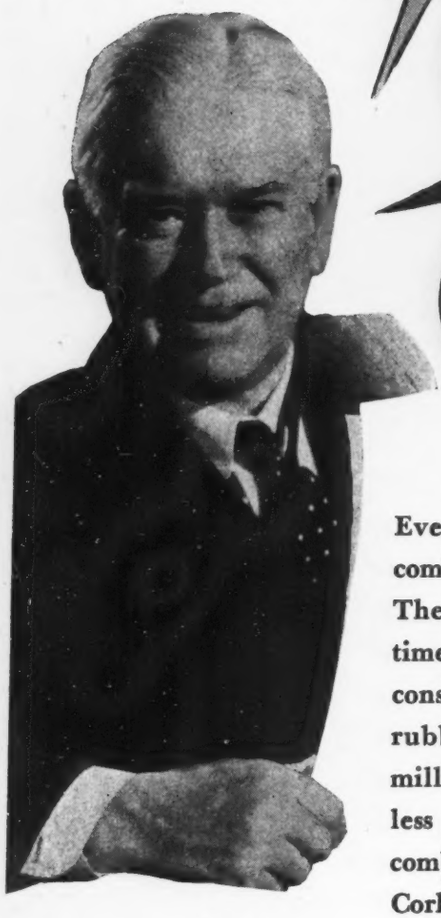

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PRINTING EQUIPMENT *Engineer*

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

VOL. 67 NO. 6

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Member Controlled

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Circulation Audit

PRINTING EQUIPMENT Engineer. Published monthly at 1276 West Third St., Cleveland 13, Ohio. Copyright 1944 by Willsea Pub. Co. Printed in U. S. A.

DON WILL, Publisher
E. P. Bloomster, Western Representative, 232 East Erie St., Chicago, Ill., phone SUperior 2444.

Subscription price per year, $3.50 in advance in U. S. A. Single copy current issues 35c; feature issues $1 per copy; December Equipment and Supplies Catalog Issue $1 per copy. Subscriptions in foreign countries as permitted for duration $4.50 (U. S. currency) in advance.

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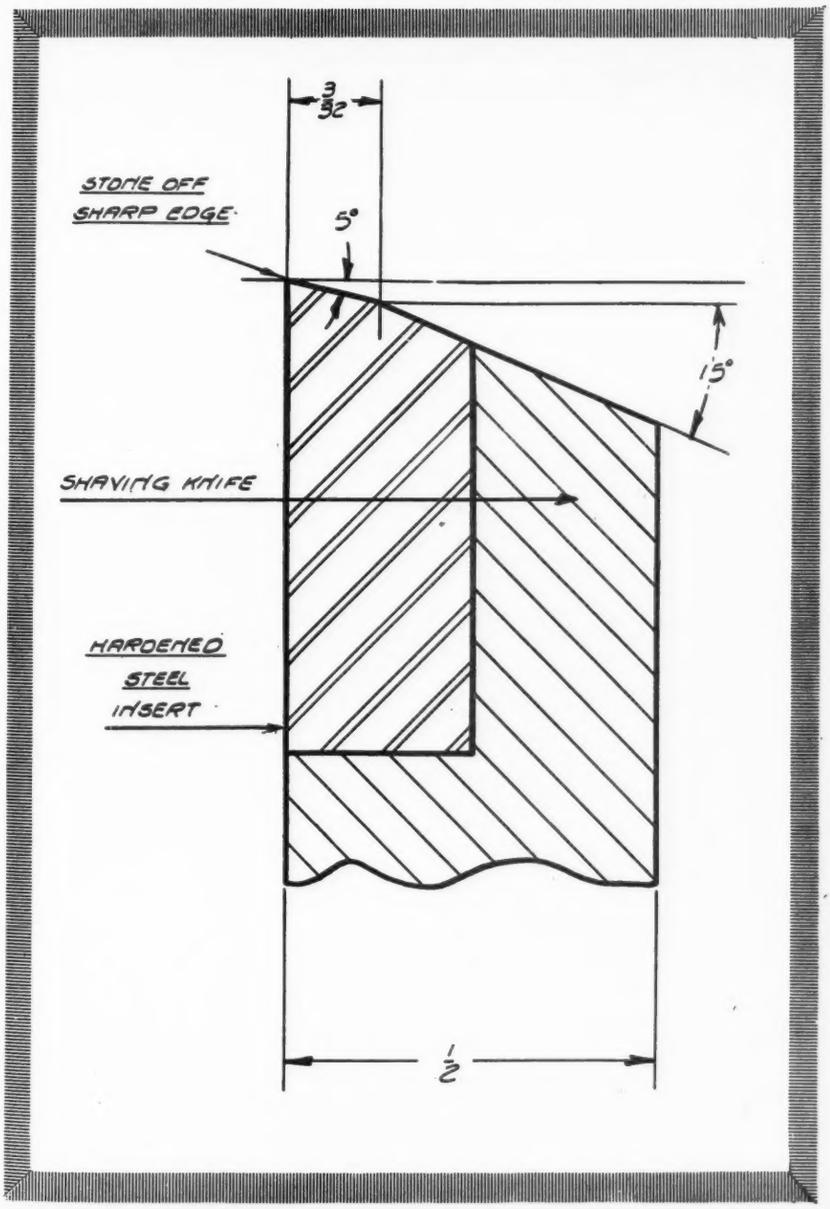

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If you prefer to Re-Sharpen your own shaving knife, it is essential to duplicate exactly the cutting-edge dimensions shown in this diagram.

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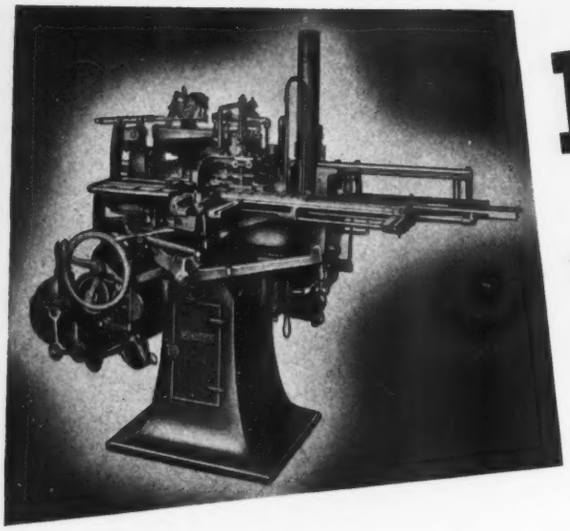

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He Pours Metal

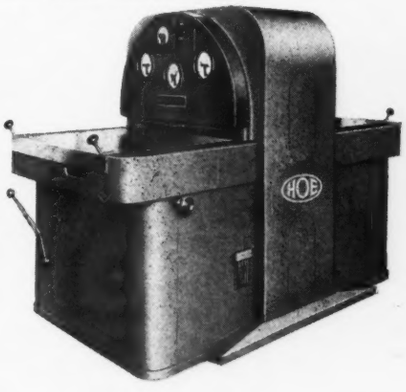
Illustrated on the front cover of this issue of *Printing Equipment Engineer* is Henry Bibbe at work in the Cleveland *Plain Dealer* plant. Henry has been associated with his present job for better than twenty-five years. He has two specialties in addition to other duties. The first of these is the remelting of type metal and the second is keeping the Cooper Hewitt lamp reflectors clean and spotless for maximum illumination. Printers in the *Plain Dealer* composing room claim that while Henry is not a member he knows as much or more than any other member of the Typographical Union about the laws, rules and regulations of that organization.

Some Thoughts about direct pressure stereotype molding for daily newspapers — Improved technique produces more level plate — Some pertinent questions about plate quality

By GEORGE FULLER*

**Stereotype Superintendent, The Cleveland* Press.

CURRENT comment by mechanical executives about newspaper direct pressure stereotype molding has been increasingly evident in the last few years, even in the face of inability to secure molding presses during the war. Undoubtedly there are many executives who still disagree with the claimed capabilities of direct pressure molding, they basing their disagreement upon the assumption that insufficient experience has been had in daily newspaper work to justify such statements. On the other hand, it is the opinion of executives of those plants using direct pressure molding that ample experience has been had to prove the merit of the method. In fact, one make of direct pressure press has been used in 20,000 press days of operation in newspaper plants on black-and-white daily molding.



The Hoe 800 T. Direct Pressure Hydraulic Matrix Molding Press is designed for molding newspaper mats as well as color mats for magazines and comics. Has sufficient capacity to develop a maximum pressure of 800 T. in approx. 7 sec. The platen, designed to accept a full size newspaper mat, is 28 in. by 32 in. Press is controlled by three pushbuttons, and by a series of selector switches to provide for the various automatic operating cycles.

In some cases, it is the writer's opinion that doubt about the merit of direct pressure stereotype molding is expressed only because some executives have confused cold molding of mill conditioned mats with hot molding and drying on the form for color work. The procedure of drying mats on the form in color work, of course, has been widely accepted and is regarded as the standard method wherever accurate color register must be secured.

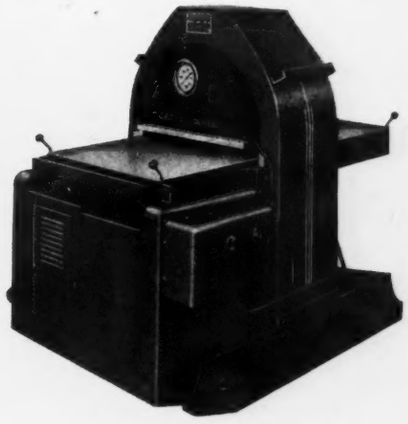
It has been claimed that for direct pressure cold molding on one make of matrix press from 14 sec. to 15 sec. is the required time for molding including placing the mat and blankets on the form, moving them into the press, molding the mat, withdrawing the form, removing the blanket and removing the mat. Thus, it seems that a mat roller would have to be stepped up to at least 29 sec. to include all of the operations enumerated above for the direct pressure complete molding cycle.

View of Lake Erie Directomat. Built in two sizes, 800 T. and 300 T. The 800 T. press is designed for cold molding of full newspaper page, syndicate or other work. Has heated moving platen for hot molding and drying of newspaper color work. The 300 T. press is designed primarily for hot molding of wet or plastic mats. It will also mold dry mats cold up to about 200 sq. in. May be equipped with double-sided controls, automatic pressure drop, vacuum drying device and platen heating. Controls are mounted on the front of the press.

The time element of direct pressure molding as compared to the mat roller should be considered by every stereotyper. Direct pressure molding can be done with greater speed than roller molding when it is necessary to hurry pages through the stereotype department. But for best results from direct pressure molding, the pressure should be held on the mat for several seconds to permit the mat to flow and set.

For still better results, the lower platen on a direct pressure press should be heated to about 200-240 deg. F. The application of heat to the bottom of the form *does not* affect mat shrinkage.

In one newspaper stereotype plant using direct pressure exclusively, the superintendent goes even farther than leaving the mat under pressure in connection with the use of heat in the lower platen. After several seconds under pressure and heat, the platen is lowered



View of Stereotex 800 T. Hydraulic Matrix Press. With it, hot and cold molding of stereotype mats from dry, plastic and wet flongs may be done. Machine is equipped with indicating pressure regulator; automatic pressure drop, pressure release and opening of press; interval timer with automatic reset; self-contained steam-electric or steam-gas heating, temperature control; push-button stations for double-sided operation. Built in 300 T., 800 T. and 1200 T. capacities.

Printing Executives Here and There

1—*Here's Joe Bloe's creator. The Joe Bloe series is appearing currently in* Printing Equipment Engineer. *Author W. W. Warfel has created some living printing plant executives in a mythical printing plant. More than one executive has stated: "Bill, you're writing about me."*

2—*When the editor called upon him, Walter C. Johnson, Secretary-Manager of the S.N. P.A. in Chattanooga, was just about ready to call it a day. Currently, is interested in future additional southern newsprint mills.*

3—*R. G. Graham is general superintendent of Nashville's Methodist Publishing House. Likes to supervise plant in which a large volume of book and publication work is executed.*

4—*Martha Lasater is S.N.P.A. Manager Walter Johnson's efficient secretary—she must know personally all of the editors and publishers and many of the mechanical executives in the South.*

5—*When this picture was taken, Director of Printing V. Winfield Challenger of N. W. Ayer & Son, Philadelphia, talked about the workings of a large advertising agency at a meeting of the Cleveland Craftsmen's Club He is shown here talking to ex-President. Charles Schraff, who is superintendent of The Strauss Co. in Cleveland. In background is Harry Hulland of G-E's Nela Park Press composing room.*

6—*Teletypesetter's daddy, Walter W. Morey paid a call to the editor's office and is quite enthusiastic over successful operation of Teletypesetter units in many plants.*

7—*John Moore, Ludlow's representative in Ohio, grew up in western printing plant environment—fond parent attended to that. His headquarters are in Berea (near Cleveland).*

8—*At the time this picture was taken, Miss Bertha Blair of the production department and Pressroom Foreman C. A. Hustin of Ben Granger's St. Petersburg (Fla.) Printing Co., were discussing some press sheets printed with metallic sheen ink. Since then, Miss Blair has married and Mr. Hustin has joined the United States Navy.*

9—*Superintendent Elmer Tucker (left) and Composing Room Foreman Rowland W. Hill, of the Hillsboro Printing Co., in Tampa, Fla., discuss (no, it isn't a press proof) a plain sheet of paper. The crackle seems satisfactory.*

10—*Homer Livingston, St. Petersburg (Fla.)* Independent's *mechanical superintendent, besides supervising daily production, likes to fuss around with new ideas for improving ad composition. Latest gadget is on Elrod for scoring side of hard-to-distinguish rule.*

and the blanket is removed from the form. The partially molded mat resting upon the form on the lower platen is then raised against the smooth iron surface of the upper platen and held there for 1 sec. This extra contact of the mat with the upper platen seems to iron out minor irregular areas in the mat. Thus improving the level condition of the printing surface of the plate which is cast from the mat.

The overall contact of the form against the mat in direct pressure molding for a several-second period of time permits the mat fibres to stretch and deform themselves permanently to the form elements so as to hold their molded depth, which is a different condition than occurs with a roller molding where some of the original depth is lost due to the short time the mat is under pressure.

Molding combinations invariably have come up for discussion at newspaper stereotype clinics in connection with both roller and direct pressure molding. The proper molding combination definitely is related to the pressure applied to the subject matter in the form. In roller molding, as a rule, the pressure delivered is determined by the amount of material in the molding combination inserted between the matrix and the roller. Usually, the molding combination is varied but little in the daily run of work. Thus an individual character in an extremely open page receives a great deal more pressure application than do such characters in a solid page of type. This would seem to account for the fact that no molding combination is universally adaptable to all rollers.

Under direct pressure molding, less disagreement is prevalent as to the proper molding combination Because of the adjustable controls provided on direct pressure machines, open pages may be molded under known pressures with 1800 lb. pressure per sq. in. over the full form area; average type pages under 2300 to 2500 lb. pressure per sq. in., and solid or picture pages under 3000 lb. per sq. in. By varying the pressure exerted upon the form, the individual characters receive approximately the same pressure and the molding combination functions similarly in all three types of form to give more nearly uniform results.

Apparently, this uniformity of molding pressure (*i.e.*, reduction of total pressure applied when it is delivered to a small area of resistance) results in a considerable saving of type and the consequent resetting of standing material in the form. The writer understands this saving runs from 70% to 80% in two plants using direct pressure.

With respect to mat shrinkage, there are some angles that have developed between direct pressure and roller molding for which there appears to be no answer.

In one large newspaper plant, direct pressure stereotype molding is used exclusively except when page forms become badly bunched at edition time, in which case one or two pages are molded on a mat roller. It is found that the pages molded on the roller will yield from 1/16 in. to 1/8 in. more shrinkage than the same form molded in a direct pressure machine.

Apparently, this demonstrates that more stretch or distortion of the mat fibres incidental to rolling gives more shrinkage than in the case of direct pressure molding. At the same time, the direct pressure mat will yield a truer printing surface in the plate because of ability of the press to hold the mat under pressure when molding for some seconds which permits the mat structure to flow and become set.

At all newspaper mechanical conferences a great deal of discussion is heard about stereotype plate variation—if a better plate could be produced better printing could be secured. At one of the interstate conferences, a mechanical executive stated he molded some pages on the back rather than the normal face of the mats. He then printed some comparison sheets on the press with plates cast from mats molded from the regular side. He asserted one could not detect any difference in the print.

Not so long ago, some comparisons were run in a press. A number of pages were placed back to back on the plate cylinder so that printing conditions would be the same. An equal number of plates were cast from magazine mats and from the regular mats from the same form. There appeared to be no noticeable difference in the printed results.

Upon examining the plates for trueness and level printing surface there seemed to be no comparison. The plates cast from the magazine mats were almost perfect reproductions of the original form—the solids were smooth and the level condition of the plate was fine. The plates cast from the regular mat carried a gray color, rough printing surface, and the solids were not smooth. There was slightly more variation in the plates cast from regular mats than the ones cast from the magazine mat. Anyone examining these plates would say there was no comparison about reproductive quality between the two—but, in the printed page practically no difference was shown. Naturally, this raises the question: "Why?" This incident also prompts the asking of a pertinent question: "Would this condition hold true if the plates had been run on a color press with bearers and hard packing?"

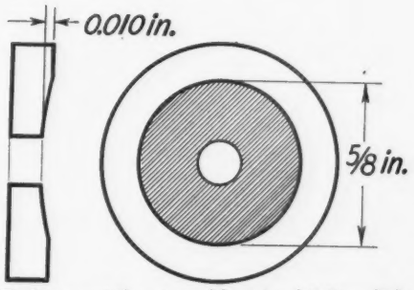
This writer has always believed that the pressroom executive is entitled to receive the highest quality plate bearing a printing level held to within close overall tolerance. The means, however, for providing him with a constant product have not been available. Now, with the introduction of direct pressure molding for daily newspaper operation along with vacuum scorchers and vacuum-back plate-casting boxes it appears that an improvement can be shown in newspaper printing.

Improving Star Wheel Tension on Line-Composing Machines

By W. J. BUTLER*

Union Gospel Press, Cleveland, Ohio.

THE next time you intend replacing the assembler star friction spring and the friction disk, or both, so as to get more friction drive between the friction pinion and the friction disk, examine the surface of the friction disk (on machines fitted with plain disks) which has been in contact with the friction pinion. Providing there still is fair compression in the spring, the chances are that the part of the disk surface bearing against the inner surface of the friction pinion is a portion in the center about 5/8 in. diam., or the area that is opposite the compression spring where it bears against the friction di k itself.



Dishing out the assembler star friction disk as shown in this diagram provides much smoother operating tension between disk and pinion.

If you will dish out the surface of the disk to a depth of about 0.010 in. and about 5/8 in. diam. in the center part of the disk surface that comes in contact with the friction pinion (leaving the outer ring of the disk surface to contact the friction pinion) you will find that the isolation of the contact of the outer surface of the disk against the pinion will provide much firmer friction with less spring tension.

An added advantage is that the tension will be maintained for a much greater length of time.

Ask *Printing Equipment Engineer* to help you locate it.

Opens Southern Office

Paisley Products, Inc., Chicago, has announced the opening of a new southern sales office. It is located at 210 Balter Building, New Orleans, La. This office is in charge of Jerry Mayo.

Could The Newspaper Printing Industry Profit From Cooperative Research?

RESEARCH—Where have we heard that word before? Sometimes research is conducted through fear of what may happen to an industry if something isn't done to stop a receding annual volume caused by the lusty growth of a competing industry. Then again, research may be conducted simply because the members of an industry are alert and aggressive and wish to supply maximum value to consumers. In any event, competition between or among businesses is enough reason for instituting research by any one of the competing businesses. No industry, as has been pointed out previously, may remain static. It isn't in the cards that fixed business methods or a process may achieve a dominant position permanently for any industry. Individual wishful thinking by any members of an industry won't lift that industry out of the slough.

If research is valuable to a number of Graphic Arts groups, then it should prove equally valuable to the newspaper printing industry. With its last known $910,000,000 annual volume (1939 U. S. Census) the proportionate cost of research, fairly apportioned, should not be unbearable to any individual newspaper.

The Lithographic Technical Foundation has carried on research for twenty years. It is now engaged in raising a three-quarter million dollar fund to extend its research work. A group of progressive electrotyping firms has been conducting a joint research program under the incorporated title of Printing Plates Research, Inc. Already dividends have been returned in the development of processes for iron plating electros and a plastic molding process for making electrotypes. Graphic Arts Market Research, a division of The Graphic Arts Association of Illinois, has initiated a service which will deal chiefly in facts and ideas having a definite bearing on postwar planning for the printer, lithographer, lettershop owner and others in the Graphic Arts Industry. Then, too, the bookbinders have benefitted from a research program conducted in cooperation with the Government Printing Office.

There must be some fundamental reason for the observation of a friend of ours who said recently: "The magazines are becoming more and more like newspapers every day, and the newspapers are becoming more and more magazine-like." We suspect this trend may become a fixed custom through which the newspaper publishing industry will not benefit.

In addition to the competition of magazines for people who like digested news and are willing to wait a few days to receive it, there is radio with its straight news reports and its news commentators who get prime attention from listeners.

Another potential threat to the newspaper, (and magazines as well) is the gossip about the full blooming of television in the postwar period. When one adds magazines, radio and television together as competitors of the newspaper it seems that the newspaper industry ought to do something about it. Through cooperative research, the industry at least could attempt to hold that which it already possesses and nobody could accuse the industry of not being willing to fight to maintain its usefulness to the average citizen.

Aside from the necessary progress in business and editorial departments of the newspaper industry, a number of purely mechanical problems could be investigated. Among these are, first of all: Old Man First Impression Printing, r.o.p. color at a reasonable cost, stereotyping for consistently all-over level plates, hard press packing vs. soft packing, and Offset-Lithography—what can it be made to do pictorially?

Equipment and supplies manufacturers have supported individual research and developmental programs for many years, by which their particular products have been refined and improved. Otherwise, the industry wouldn't have benefitted from numerous technological advances. Excepting the paper and ink studies conducted in GPO's technical laboratory a number of years ago, there has been no cooperative research by producers of newspapers. In a $910,000,000 industry it appears to *Printing Equipment Engineer* that there should be a desire and enough money to conduct cooperative research.

Mitchell Addresses Chicago Craftsmen's Club

THE viewpoint that geographically and economically our country's development has reached its zenith, is erroneous thinking. We possess tremendous areas and resources to be yet developed and capitalized upon. At least part of our frontiers of the future lie in the laboratories that are doing research work, stated President R. V. Mitchell of Harris-Seybold-Potter Co., before the January meeting of the Chicago Craftsmen's Club.

Mr. Mitchell said there is nothing fundamentally wrong with our basic economic system but we are suffering from restrictions. In the post-war period the duty of all industry will be to make available wealth-producing employment that provides a high standard of living. Without this type of employment, the future for all industry will be questionable. If the remarkable wartime production records can be converted into peacetime production, we will make a real step toward post-war stability.

In regard to the subject of what's ahead for offset, Mr. Mitchell called attention to the tremendous growth of offset over the last twenty years as indicated by the statistics of the Census Bureau. The various wartime printing jobs such as the overseas editions of *Time* and *Newsweek* and the London *Daily Mail* were pointed out as examples of the versatility of offset lithography. He also discussed the many wartime uses of offset-lithography by the army and navy.

In closing, Mr. Mitchell stressed the necessity for cooperation in all business for a greater effort to reduce costs, improve methods and sell more at a profit.

Honorary Membership Presented --Miniature reproduction of Honorary Membership Certificate presented to U. S. Public Printer Augustus E. Giegengack by Printing Plates Research, Inc., at its Columbus, Ohio, meeting in February. The certificate was awarded in recognition of his active support and encouragement of technical research in the Graphic Arts Industries. Presentation of the Certificate was made by Sam Ross McElreath of Dallas, Tex.

The annual meeting of Printing Plates Research, Inc., was held at Battelle Memorial Institute, Columbus, O., on February 22 and 23.

Officers selected by Printing Plates Research, Inc., for the ensuing year at the Columbus meeting are as follows:

President, Joseph Schwartz, Westcott & Thompson, Philadelphia; First Vice President, R. R. Myers, Capital City Printing Plate Co., Des Moines, Ia.; Second Vice President, Sam Ross McElreath, Dallas, Tex.; Secretary-Treasurer (re-elected) J. Homer Winkler, Ace Electrotype Co., Cleveland.

RESEARCH — *Its value to Graphic Arts Industry — National Advisory Council for the Graphic Arts proposed — GPO ready to cooperate*

By HON. AUGUSTUS E. GIEGENGACK*

**United States Public Printer, Government Printing office, Washington, D. C. Abstract of address delivered before meeting of Printing Plates Research, Inc., Columbus, Ohio, February 1944.*

PRINTING Plates Research, consisting of a group of electrotypers, has had the courage and vision to undertake, at its own expense, a non-profit program of research for the improvement and development of its industry. I am glad to have been able to encourage this activity and I look forward to a continued cooperative participation in your progress and in the results of your studies. The reports of investigations on iron plating, form correction, silver spray and plastic molding, are stimulating and full of promise. I predict that this work will prove to be a boon to printers and a credit to your organization as the sponsors. I urge you to keep up this good work.

Need for Research

Dr. Bruce W. Gonser of Battelle Memorial Institute aptly summed up the need for research in an article printed in the *Electrotypers Bulletin* of 1937 in which he stated: "The value of industrial research is best demonstrated by the rapid and continued growth of research organizations in the United States during the past few decades. The great number of companies which have established research departments of their own, or are having work done for them at institutions having the proper equipment, is too well known to require comment. This growth has been due to the realization by industrial executives that research is needed for defense purposes as well as to pay dividends in the development of new products, new processes, improved or cheaper operations. In this competitive age there is no standing still. A business moves ahead in line with progress or sooner or later has to give up the race. An alert research program has been found to be a mighty good investment for keeping up with the leaders. Increased knowledge is a long step towards increased profits. An interesting thing about research is that the most important innovations frequently result unexpectedly, while actually working for a different goal. These nuggets would never be uncovered, however, if some digging were not going on around them.'

Industry Has Depended Upon Arts for Progress

Since the days of Gutenberg, the Graphic Arts Industry has depended more upon the Arts than upon the Sciences for its fundamental support. It is only within the past quarter of a century that the printing industry has devoted much attention, as many other rapidly advancing industries have done, toward utilizing the tools of chemistry and physics to aid its progress. It is wise to adopt Science to help us as we see it helping others all around us. Printing must keep in step with the forward march of other industries.

It must not be construed from my remarks that research studies of Graphic Arts problems have not been made. Actually the technologic status of our industry today is a result of various investigations of a scientific and technical nature made during the preceding twenty-five years. The electrotyping industry has an enviable record of nearly thirty years of fruitful research upon electrotyping problems. The Lithographic Technical Foundation has accomplished wonders for planographic printing by bringing to bear the tools of science upon production problems. The paper making industry, the gravure printers, the ink makers and the bookbinders all have expended considerable sums for extended periods on technical research.

While these research projects may have been originated by some of the industries as a means of defense in a struggle for competitive markets, they have certainly merited continuation because of their value in promoting increased profits.

Greatest Present Need

The greatest need of the Graphic Arts Industry at this time is a coordinated plan encompassing the various research activities. Certainly the number one project of such a plan should be the preparation of an annotated check list of the literature dealing with the printing industry in all its phases. The lack of such a catalog for the fourth largest industry of this country is deplorable. Many reasons can be enumerated as to why this situation exists but to do so here would not serve our immediate purpose. It should be emphasized now that the earliest opportunity should be embraced to overcome the handicap.

There must be a correlation of widely accumulated data to make all the varied information available to the printing industry at large and to insure greater utility through permanent preservation for ready reference.

Initiating Library Research

The plan could begin at this point to function, with the least expenditure of funds, as a library research to collate existing data pertaining to materials, specifications, procedures, and processes in present use throughout the world. If this existing information were collected into one place and disseminated through appropriate channels to reach the interested trade, its value in producing better printing results and reduced costs would be inestimable and certainly alone worth all the investment of time and money for its accomplishment.

Some cooperative research of this sort has already been conducted at the Government Printing Office, to the great advantage of both the Office and the industry at large.

First Co-Op Work at GPO

The first cooperative work with industrial groups to be done in our laboratories was with the United Typothetae of America, which in 1924 accepted an offer to assist in establishing standard grades for bond and ledger papers. An expert employed by the Typothetae and working in the Government Printing Office, aided in preparing the report proposing grades and qualities for bond and ledger papers, which have been adopted by the Government and used with satisfaction for several years.

This paved the way for an act of Congress of May 14, 1928, which specifically included the Government Printing Office in the list of industrial and scientific establishments of the Government which are authorized by law to offer their facilities to scientific investigators and qualified individuals for study, research, and the promotion of knowledge.

Since the passage of this law, the Government Printing Office has conducted valuable cooperative researches on newsprint paper and printing inks with the American Newspaper Publishers Association and upon bookbinding materials and methods with the Employing Bookbinders of America. The latter organization continues to maintain a research associate at the Government Printing Office laboratories.

On October 3, 1938, there was inaugurated in the Government Printing Office, a program of research which was sponsored by the International Association of Printing House Craftsmen. The program itself was under the direction of a Research Commission of the Association.

I was very glad to participate in this effort, both as Chairman of the Commission and through my office as Public Printer, and I made available the facilities of the Government Printing Office to the end that the program might be successful. While the original part of our effort was applied to a bibliography of the industry, the whole program was intended to be as comprehensive as it was possible to make it.

Scope of Program

Unfortunately, because of a change of policy on the part of the Association, the program was discontinued in December, 1939. It is my hope and expectation, knowing the sentiment of the printing industry in the United States, that this activity be reinaugurated in a more amplified form in the future. Tests under practical operating conditions of new and untried machinery and other equipment and products developed by the various manufacturers and suppliers, should also be included in this program.

Proposes Federal Agency

A wholly feasible idea that I have recommended on previous occasions is the organization of a Federal Agency—a National Advisory Council for the Graphic Arts, if you please—to function as a clearing house, enquiry bureau, coordinating agency, liaison between Government and industry and perform such other useful functions for the printing industry as may be desirable. Thus all of the many individual trades and activities that go to make up the printing industry would have an impartial, helpful agency that would encourage research. The maximum return from money spent for this purpose would be assured by the avoidance of duplication of effort, advisory consultation and by having available an up-to-date annotated check list of the literature on printing.

Cutting 36 pt. Quads from Elrod-Cast Base Material

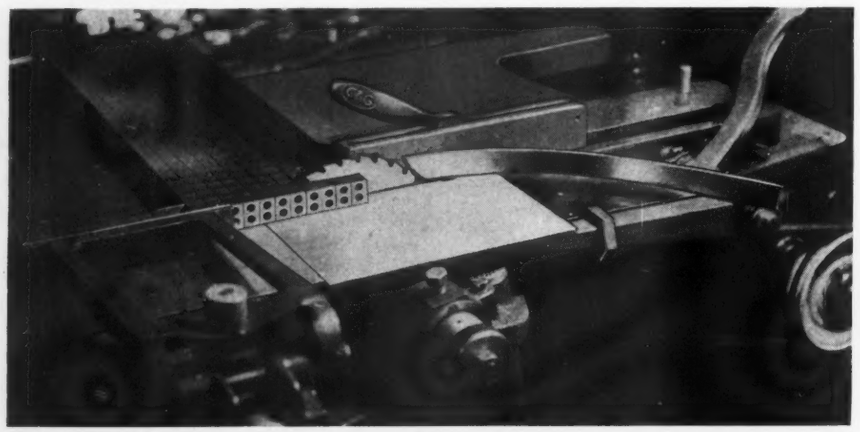
THROUGH a fixture made from 16 ga. photo-engraver's zinc, it is possible to cut quads from 36 pt. Elrod base material in the composing room of the Little Rock (Ark.) *Democrat*. Frederic R. Rice, composing room foreman, attributes the idea to one of his printers in collaboration with a composing machinist who made the fixture.

The bottom plate of the fixture is constructed from a suitable size piece of zinc fitted in a fixed position on the swinging section of the table top (right side) of a C&G saw-trimmer. This zinc bottom plate can be secured to the swinging table top by two flt. hd. 8x32 screws. At one corner of the zinc bottom plate, as is shown in the illustration, a curved piece of 16 ga. zinc is soldered. This curved piece is intended to guide the quad pieces in a curved line so that it won't be necessary to remove them each time a cut is taken through the base. In this illustration, three cuts can be taken before it will be necessary to remove the 33 quads.

In the illustration, 11 lengths of 36 pt. Elrod base have been placed in front of the gauge bar. To facilitate cutting the quad pieces to exact measure, the right-hand end gauge is lowered over the table and adjusted for 36 pt. trim. Each time a cut is taken through the base, the base lengths are moved so that the ends will bank against the right-hand end gauge for the next cut.

To maintain right-angle cut of the blade the lengths of Elrod base rest upon a sheet of 16 ga. zinc of suitable size.

Mr. Rice reports that a printer recently filled a box with the sawed 36 pt. quads in 1 hr. The inside measurements of the box are approx. 10 in. wide, 18 in. long and 18 in. deep.



View of fixture attached to the bed of a C&G saw-trimmer in the composing room of the Little Rock (Ark.) *Democrat*. This gadget was devised for cutting 36 pt. quads from Elrod base. The curved piece fastened to the bottom plate guides the quads as they are cut so that it isn't necessary to remove them each time a cut is taken through the base. The fixture was constructed from 16 ga. photo-engraver's zinc. The curved guide piece was soldered to one corner of the bottom plate, and the end immediately at the rear of the saw blade is beveled to facilitate movement of the quads during the cutting operation.

Now Technical Consultant

Summerfield Eney, well known as a speaker before many Craftsmen's clubs on the subject of pressroom and paper problems, is now technical consultant for Reinhold-Gould, Inc., paper merchants, New York. Originally, he was a pressman. His technical experience has extended over more than 50 years in the Graphic Arts Industry. At one time he was associated with Harris-Seybold-Potter Co. For the past 15 years he has been connected with Champion Paper & Fibre Co. mostly in the capacity of trouble-shooter.

If it can be found, *Printing Equipment Engineer* will help you locate it.

The Wartime Mechanical Executive

(An Editorial)

PRINTING EQUIPMENT ENGINEER pays tribute to the mechanical or production executive in wartime. His position is somewhat different from ordinary civilians even though all civilians on the home front are willing to adjust themselves to the arbitrary conditions imposed by war. The mechanical executive must adjust himself as do other at-home citizens to the exigencies of taxes, bond-buying, high prices, the moral duty to stay off public transportation as much as possible, rationing programs and inadequate salary increases. If these conformations to an upset economy ended here, then there would be no point in writing this article.

The printing industry is in a somewhat peculiar position with respect to wartime economy by reason of the fact that the powers that be refuse openly to declare it an essential industry. Thus it is put into the twilight zone, like the auto driver who can't use his headlights and he can't drive well without 'em at that time of day. Yet it is an industry which is just as essential to the winning of the war as are any of the manufacturers of war materials. The effective pursuance of the war could not be fulfilled without the various forms of printing produced by civilian industry.

All people in civilian industry like to think they are functioning importantly in helping along with our major objective even though they don't do direct war work. Executives in the printing industry have every reason to feel that their's is an essential industry. Who calls upon newspapers and magazines to secure the cooperation of the citizenry in responding to Government appeals for bond-buying? the many salvage campaigns? compliance with edicts tuned to facilitate war production? other edicts to safeguard the welfare of the armed forces wherever they may be by requesting through the press that we be careful about spreading rumors? Incidentally, too, commercial printers have been busy producing for Government and the armed forces, many million dollars worth of manuals, ration books and other essential printed matter without which successful prosecution of the war could not be accomplished.

Even though his industry is somewhat of a non-essential industrial pariah in the eyes of WPB with respect to essentiality, the printing plant mechanical executive has gone along uncomplainingly and to date has given an excellent account of himself.

One of the principal worries of the mechanical executive as contrasted with smooth-running peacetime operation, of course, is in the man-power problem. This problem is aggravated because the industry has not been declared an essential one. Hence, many highly-rated craftsmen have been called into the services, leaving no immediate replacements. Because of the skills required in the fabrication of printing we feel that the loss of skilled workers probably is felt more keenly in the printing industry than in other civilian industries.

The mechanical executive, of course, knows full well that an important part of his job is to encourage development of skill among his workers. In other words, he is a perennial teacher—he must develop worker skill. This quality in an executive is now highly accelerated. You can't go out and grab off highly skilled workers just when you please. Unable to secure deferment for these workers, he must do the best he can with what is left. This situation at present probably is the most costly element in printing plant operation.

Printing Equipment Engineer looks forward to a hearty and enthusiastic response on the part of mechanical executives when the Government Rehabilitation program gets going. Not to cooperate in this worthy objective would be stupid. At least several executives have already told us they are anticipating the time when they may have a hand in training handicapped warriors because they feel these men will be apt students for certain mechanical work.

Literally, the plant executive now is a mental jumping jack—he's got to maintain his equipment in status quo for the duration. His principal concern at the moment isn't equipment obsolescence. It's a question of maintaining maximum production with old equipment and in many cases alternative supplies. Perhaps those rollers don't behave just as did the top-notch pre-war product; the paper stock isn't up to usual quality or it is necessary to print upon narrow-margin, light-weight stocks with ink-repellant surface; maybe the blankets are not up to quality; perhaps there are items such as certain chemicals needed in plate-making for which substitute materials must be used. Needing a machine part which cannot always be obtained, he has learned to undertake major repair operations which he has never heard of before.

To add to the pressure, he has to cope with promised delivery dates while short-handed. The finishing of the job isn't facilitated any too much by having the force work overtime.

Like the soldier in the field, the mechanical executive follows that bullish American custom—he's looking forward to the victorious ending of the war when, along with his firm, fellow executives and workers he can resume his constructive function in a normal economy.

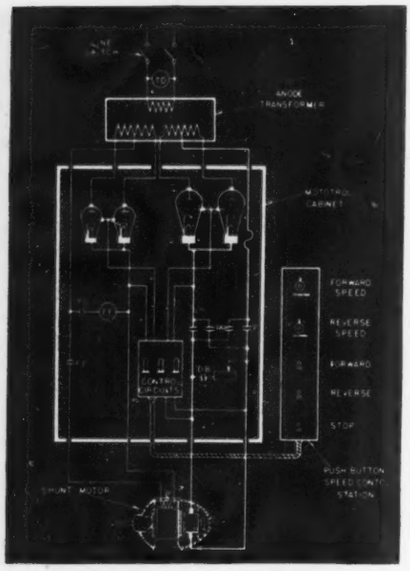


Fig. 1.—Diagram shows schematic arrangement of an electronic adjustable speed motor drive. The control permits smooth stepless adjustment of motor speed over a range of at least 20:1 below the base speed of the motor, and over an additional field control range of as much as 4:1 above the base speed of the motor.

Some Applications of Electronic Control in Printing Industry

By E. H. VEDDER*

*Manager Electronic Control Section, Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Abstract of address presented before American Society of Mechanical Engineers.

ELECTRONIC control is now used in a variety of ways as a component part of systems which are usually partly mechanical and partly electrical. Inasmuch as many functions may be done either electrically or mechanically, careful consideration must be given to coordination of the two elements to produce the best system.

The first principle we need to establish is that electronics will live up to its publicity only if it is really put to work as an accepted workaday tool. If electronics is allowed to become a gadget business, we have failed to utilize the tool properly. The gadget angle can be avoided only by critical survey of every application. Electronic control has been developed which will do many things better less expensively, faster, or more precisely as well as many things previously impossible. But, electronics is not a cure-all for every trouble. It is merely a new tool which must be properly used within its limitations. To illustrate the type of things for which electronics is suited, a few applications will be described.

Motor Control

Many motor drive problems, particularly those connected with machine tools are best solved by the characteristics inherent in a shunt wound d-c motor. The almost universal availability of a-c power and relative unavailability of d-c power has made it much more difficult to use the desirable d-c motor for these drive applications. There has also been a growing desire for a greater nicety of control then can be readily obtained even if a d.c. system is available. An electronic control has now been developed which operates a d-c motor from an a-c line and has additional desirable features not previously available. The electronic adjustable speed drive shown in Fig. 1 consists of a d.c. shunt wound motor whose field and armature are energized by separate thyratron rectifier circuits. These rectifiers are so controlled as to vary the input to the motor, regulate the motor speed to a preset value, and limit the maximum current furnished the motor during acceleration and reversal.

The control permits smooth stepless adjustment of motor speed over a range of at least 20:1 below the base speed of the motor, and over an additional field control range of as much as 4:1 above the base speed of the motor. This speed control is readily obtained over the full range below and above basic speed by means of a small dial located in the push-button station convenient to the operator.

Combined with the wide range of speed control is the very flat speed-torque characteristics over the whole range. This is obtained by speed regulating circuits which insure that the motor will be held to the preset speed chosen by the operator. In a properly adjusted system, the speed over a 10:1 range below basic speed will not vary more than 4% from a preset value with torque varying from no load to full load, nor will it vary more than 8% for any speed within the speed range of 20:1. Normal variations in a.c. voltage have only a small effect on the speed regulation.

There are many motor control systems where speed regulation is desired, but there is no advantage in full electronic control. For this purpose, a speed regulator system has been developed. In this particular system, the d.c. motor is furnished with power by a motor-generator set. The MG set field is energized from the electronic regulator. The motor speed is indicated by the speed indicating generator whose output voltage is proportional to speed. The indicating voltage is applied through an amplifier and regulating circuit to the grids of the rectifying tubes which furnish the generator field. This device has found ready acceptance in paper mills for regulating the speed of a single motor paper machine drive. It maintains the speed to an accuracy of approximately one-half per cent and may be adjusted over a speed range of 10:1.

Control Using Light

This control is called photo-electric because it is actuated by the response of a light sensitive element called a photo-tube. Photo-electric control is useful for actuating a system in response to a change of color, shade, density, shape, or position without mechanically touching the controlling object.

Many of the more important photo-electric applications may be classed as process regulators. Thus, a loop regulator on a paper coating or steel strip mill watches the long position and calls for

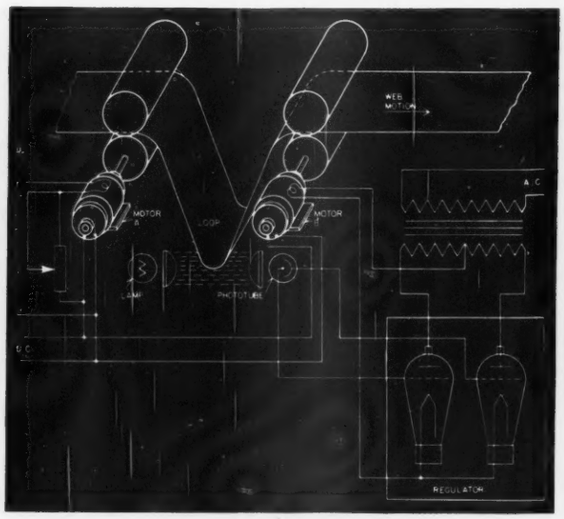


Fig. 2.—Many of the more important photo-electric applications may be classed as process regulators. Thus a loop regulator on a paper-coating mill watches the loop position and calls for slowing down or speeding up one of the sections of the mill to maintain a constant loop. This schematic arrangement of electronic control is for matching motor speeds on roll drives.

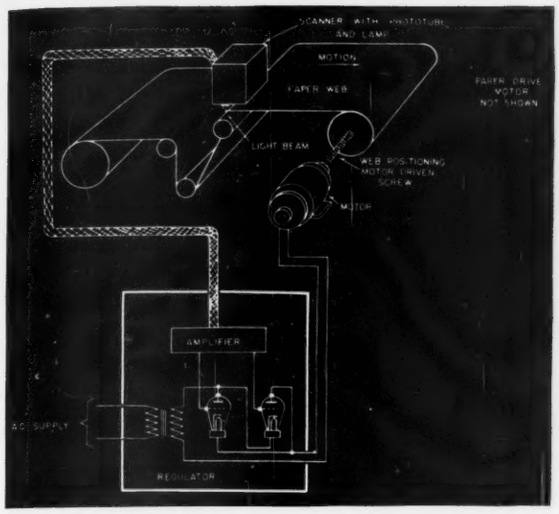


Fig. 3.—Schematic arrangement of electronic edge line control for slitting or rewinding of paper, glassine or cellophane.

slowing down or speeding up one of the sections of the mill to maintain a constant loop. The system in Fig. 2 is a simplified arrangement and when the d.c. motors are operated from a constant voltage power supply the web speed is limited to a maximum range of 4 to 1 through field control. Should an adjustable voltage system be used, a speed range of 10 to 1 and higher may be obtained. An additional speed range is obtained through the combination of voltage and field control. The web is driven by motor *A* into the loop and taken out of it by motor *B*. Motor *A* and motor *B*, for instance, can operate two different sections of a conveyor or two separate stands of a mill. The speed of motor *A* is adjusted as desired and the regulator then keeps the speed of motor *B* at the proper value to maintain a constant loop between the two sections. An increase of loop length reduces the amount of light reaching the photo-tube from the light source and modifies the field excitation of motor *B*, adjust its speed, and bring the loop back to the proper position.

A regulator used frequently in the paper, cellophane, and glassine processing industry is that for maintaining the position of cut when taking from a roll of preprinted stock for making bags or packages. Although the machine feeds paper at a rate approximately correct to match the speed of the rotating knife, cut will never remain registered perfectly without either manual or automatic supervision. A register regulator corrects for changes of paper slippage, stretch, and speed relative to the cutter speed. The position of the printed material is indicated by a rectangular register mark in the design or margin which is scanned by a phototube. The position of the mark with respect to the cutter is checked and the speed of paper feed modified if necessary.

When slitting strip material, it is often necessary to regulate the sideways position of the web to insure cutting at the proper point relative to a trademark or printed design. The slitter regulator in Fig. 3 scans the edge of the paper web or a line in the printed design. The proper web position is obtained by moving the roll of material to the position called for by the phototube in the scanning device. The same device is used to scan the edge of a web and correct the roll position to insure smooth roll wind-up when rewinding mill rolls.

The pin hole detector is probably one of the more prominent commercial applications of sorting. Much loose publicity has been given to the use of photo-tubes for sorting applications. It should be realized that the photo-tube responds only to a difference of light energy reaching it and also in some degree to changes of the color of the light. The photo-tube does not have any intelligence, and therefore cannot duplicate the performance of the human eye for the great majority of sorting problems. The only way in which a photo-tube can be made to appear to have judgment or intelligence is to so design the optical system that the photo-tube will receive a varying amount of light depending upon a particular characteristic of the material which it is desired to detect. The application of photo-tubes to sorting problems is usually very expensive because of the considerable development involved and many times cannot be justified for that reason alone. This development expense can be absorbed if the commercial possibilities for the finished design are sufficiently enticing, but if they are not, the individual user is not ordinarily willing to pay the development charges.

Many applications for photo-electric control can be taken care of by general purpose devices called photo-electric relays which may be considered as light sensitive limit switches. These are available in varying forms and at varying prices, depending upon the desired sensitivity and functions to be performed and can be adapted by the purchaser to his own application. These include counting, drinking fountain control, door control, and conveyor control and many others known only to the many users.

Conclusion

The applications described show typical applications for electronic control. These have come about through close coordination of the electrical and mechanical design. Only by this cooperation has it been possible to insure that the electrical and mechanical equipment will match each other in precision and reliability. If they do not match, a regulator with $\frac{1}{64}$ in. accuracy may be attempting vainly to control a machine with $\frac{1}{8}$ in. backlash or a precision machine may base its value because of coarse control.

Electronic control, properly selected for applications where it can perform better or less expensively, will do what seem to be miracles. This is so because

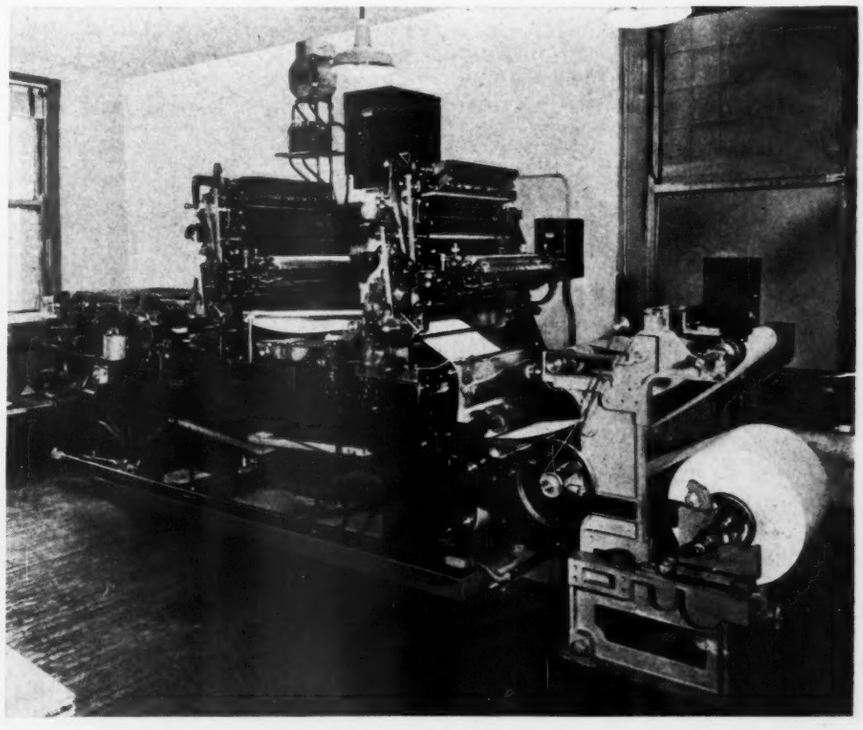


Fig. 4.—View of slitter regulator used on an offset-lith printing press to maintain the position of the paper web.

Color Chart Available To Printing Executives

According to a prominent photo-engraving official, two thirds of all engraving today is devoted to process work, while the remainder is black and white. Interest in color work is evidenced in publications, displays, and in printed promotions. The demand for color is reflected in printing inks. To aid advertisers, printers, publishers, engravers and all those concerned with four color process reproduction and printing, the Sigmund Ullman Company, Division of General Printing Ink Corporation, offers a series of Demonstration Charts with Sigmund Ullman Multi-Process and SUveneer Process Inks.

This demonstration is printed on coated and machine coated stocks, and shows combinations of two, three and four colors in 10%, 50% and 80% screens. Also displayed are warm and cold tones of yellow, red and blue in 16 different four-color process combinations to facilitate the job of ink selection to suit copy. Opaque and transparent yellows are likewise shown, as are gloss process inks for the two types of stocks.

Eastern General Manager M. J. (Hap) Hoover of Sigmund Ullman Co., Div. G.P.I., exhibits demonstration charts printed color process method.

new tools with incredible speed and versatility have been added to the designers kit. His vision is thus broadened beyond the pure mechanical or the electro-mechanical device to the electronic tube which is purely electrical with incredible speed and versatility. Through proper combination of all three of these tools, designers are unfolding new engineering accomplishments with amazing possibilities.

Elected President

Walter B. Patterson has been elected president of Canadian Linotype, Ltd., but continues to carry on as linotype director of agencies also. His headquarters will be at 29 Ryerson St., Brooklyn, as before. He has been with Linotype for 11 years. He has held various executive positions with American Lithographic Company; the McGraw-Hill plant, after the merger which brought those interests together; the Blakely Printing Company, Chicago, and in 1927 he went to the Rumford Press, Concord, N. H., where he was responsible for the regular appearance of scores of periodicals.

Harry E. Reid continues as manager of Canadian Linotype, Ltd.; Charles H. Orpwood as assistant to the manager, and J. A. K. MacLellan as accountant.

Flexible Padding-Glue

A COLD, flexible padding glue has been announced by So-Lo Works, Inc. This product works like latex rubber padding-glue, but contains no rubber—hence no priority is required. It is available in quarts and gallons.

In using So-Lo Padding Glue no heat or solvent is required. It is applied with a water-moistened brush, and is flexible when dry. Manufacturer states it will not crack or chip. Details and a memo pad showing use of the product, will be sent upon your request to *Printing Equipment Engineer*.

Plans are being completed by the Boston Club of Printing House Craftsmen in tendering Frank E. Wagner a testimonial dinner at the Hotel Statler, Boston, on Monday evening, April 17. Mr. Wagner recently retired as head of the S. D. Warren Co.'s Printing-Testing Plant.

The testimonial will honor the services which Frank E. Wagner has rendered the printing industry over a period of some 27 years, during which time he traveled over 50,000 miles a year addressing Craftsmen's clubs on technical problems involving the affinity of inks for paper.

Reservations for the dinner may be made through Fred Williams, Sec.-Treas. of the Boston Club of Printing House Craftsmen, at Boston Mailing Co., 394 Atlantic Ave., Boston 10, Mass.

Navy Praises Edes Workers

In February, a Victory Rally was held in the plant of the Edes Manufacturing Co., Plymouth, Mass. The rally was staged at the request of the Navy to impress upon Edes workers the important part they are playing in the war effort. Guest of honor at the ceremonies was a wounded naval hero, Seaman Second Class Marvin Alexander, member of the only invasion boat crew (LCI No. 1) to win a Presidential citation.

Edes workers are rolling and fabricating tons of zinc to equip invasion barges.

The ceremonies were in charge of Lt. W. M. Jennings, First Naval District Industrial Incentive Officer. Oliver L. Edes, treasurer of the company, made an address. The committee in charge of the rally included Harold T. Burns, Frank Martin, Norman Holman, W. J. Brenner, W. W. Morton, James Dickson and Arrigo Vecchi.

Because the Edes Company seldom has sizable contracts direct from the Army or Navy, the plant is not eligible for an Army-Navy "E" Award. The company functions as subcontractor for scores of plants and shipyards which hold the "E" Award.

C. D. Proctor is appointed Sales Manager of the American Type Founders Sales Corporation, according to an announcement by Thomas Roy Jones, President of American Type Founders, Inc., the parent company. Mr. Proctor has been manager of sales development of the sales corporation since 1940.

In his capacity as Sales Manager of ATF, he will report direct to E. G. Williams, Executive Vice President of the parent company.

F. B. Heitkamp, Vice President of ATF, who was formerly in charge of sales, will hereafter devote his full time to the function of planning and coordinating the various phases of activities of the parent company and all subsidiaries, and assist in formulating policies and making recommendations and decisions.

C. D. Proctor has been appointed sales manager for American Type Founders Sales Corporation.

Without conscious thought, Joe stood up and vehemently passed his fist right through the glass panel. Joe said: "Frank, that settles it—I just cooked my hash. I'm through."

Joe Bloe—Foreman

By WILLIAM WYATT WARFEL

PART XI.

JOE stood at the end of the hall staring out of the window. With shoulders drooped in relaxation caused as much by shame as by defeat, he looked without seeing upon the wriggling traffic on Tincup's main street. Nothing of the view before him registered on his mind; it was as if he had forgotten to sensitize his mental film. John Donkey had been promoted. Joe's long-promised raise was withheld. In this sour thought the natural sugar of his being dissolved.

As he awoke from his stupor, he slowly turned and descended the stairs like a man in a trance. Joe was in the dumps. Everybody could see it. The sense of failure seemed the more bitter because of the momentary victory. As he banged open and then slammed his office door he grumbled, "Once a palooka, always a palooka."

Instinctively looking for support, Joe raised his eyes heavenward and out loud said, "What is the matter with me anyway? For fifteen minutes I had the old mossback on the merry-go-round. The next thing I know he is pulling the levers. I was spinning off on my ear. That's the way she works out every time. Somewhere I talked too much again."

A slight noise at the door caused Joe to turn around. Frank Ness Daub was leaning against the door jamb, grinning from ear to ear. Ruefully Joe nodded with a sour smile as he motioned to Frank to take the office chair. "This ear-conditioned hangout," said Frank as he made himself comfortable, "is no place for griping out loud."

Joe looked around with wide-open eyes; for the first time he realized his 'office' was merely a roofless packing box with a glass door. There never had been any secret conferences here. He quickly peeped up and down the hall to see if any one had been listening. Frank Ness pushed right through Joe's thoughts: "You were the guardian angel in my life when I wore knee pants. I guess it's now time to switch places. You made an ass of yourself before I walked into the Old Man's office. I heard you way down the hall. After I fixed that one up, you started right in and talked too much again. Why do you think I kicked you on the shins? What did you pull after I left? Did you get your promotion? What happened?"

"Somewhere along the line I stepped on my dauber," whined Joe as he slowly shook his head from side to side with a puzzled look on his face. "It looks as though this joint has my number. I can always get something for someone else. Every time I play my fiddle, all the strings bust. What's the answer?"

"It looks to me as though you have the answer," said Frank seriously, "but you don't use it. You have been around the Old Man for twenty years. By this time you should know how to get in high gear. Instead of that, every time you go near him, the brakes squeal to high heaven. Lets dope it out. What caused the rumpus just before I walked in?"

"He was blamin' me," hollered Joe in self defense, "for things I couldn't help. That's the way it is all the time. I just spilled over. Jeez, did I let him have it. I didn't pull any punches."

"Yes," sneered Frank, "you punched yourself. You did a good job of it too. Don't you remember the one your Grampa said everytime he saw red: 'He who acts in passion, acts against himself.' "

"I shoulda never boiled over like that," said Joe as he nodded agreement. "But, doggone it, the Old Man had my goat. Right then and there a twenty-mule team couldn't of held me down."

"For crying out loud," laughed Frank. "Here you are. A father. You hand out sage advice to your son. Do you remember the verse you taught me that time I told off Delly Kate? Listen:

If your lips would keep from slips
Five things observe with care
To whom you speak, of whom you speak
And how, and when, and where.

"Yeah," said Joe with a smile. "I 'member that one good. I taught it to Junior with a paddle the day he came home from school with a note from the teacher for being sassy."

"A paddle would make no impression on a hard-shell turtle like you," snickered Frank as he sat twiddling his thumbs. "You look as if you were mad at me, too."

"Hellno," said Joe with a grimace as he looked at his dirty paws, "I was just thinkin' how swell it would be to be born with a gold spoon in my mouth and live the life of Reilly."

"So, that's what's eating the lining off your gizzard?" questioned Frank as he shifted his feet on Joe's desk. "Got the gripes, hey? Everybody out of step but good old Joe. Is that it?"

"A fine guy you turned out to be," cried Joe bitterly as he scrootched around on the desk. "Rubbin' it in, hey?"

"Do you want to make something of it" snapped Frank belligerantly.

"Lissen, punk," yelled Joe as he leaned toward Frank, nearly overturning the desk, "I nursed you when you wore three-cornered pants. You ain't dry be-

As he awoke from his stupor, Joe was like a man in a trance. He was in the dumps. Everybody could see it.

hind the ears yet. I oughta slap you down and pin your ears back. You're getting too big for your breetches."

"Act your age," snapped Frank saucily.

"I am," hollered Joe, "It's about time I told you and all the rest of the lice around here just where they fit. By the gawdam, it's about time too. Grampa said, 'You can only shove a two-inch corn cob 'so far' up a one-inch hole'. I been pushed around long enough. What this place needs is a house-cleaning. I'm the guy who can do it, too."

As Joe worked himself up he pounded his knee with resounding whacks to emphasize his statements. His irritation grew as he saw no sign of sympathy or understanding on Frank's face. Joe swung his arms as though he would tear down the building. His knuckles rapped sharply against the walls.

"Look at that," Joe shouted at Frank. "Not enough room to swing a cat. Those tokus-kissing babies upstairs have room to burn. Kent B. Shure's clothes closet at the information counter is bigger than my whole office. Up there in the complaint department, Grinnan Bearitt has a waste basket twice the size of my desk. Pryor O'Tee's desk in the government report office is as big as this whole room. They get anything they ask for. What do I get? At least fifty times the Old Man admitted I had more dough coming. I never got it. Ten times he promised me a new office. All I got was my name on this second-hand door."

Joe turned and looked at the makeshift door fitted with a piece of cracked glass. Without conscious thought he stood up and vehemently pasted his fist right through the glass panel. He turned and leaned against the desk while examining his bleeding fist with something of the incredulity of Lady Macbeth. He could only think that 'out damned spot' referred to him and not to the blood. Without looking up he said, "Frank, that settles it. I just cooked my hash. I'm through."

Shrugging his shoulders, Joe mustered up a sickly smile for Frank while pulling a dirty handkerchief out of his work clothes. As he started to wrap the handkerchief around his bleeding hand, Frank tore it from his grasp with a cry: "What are you going to do?"

"I'll tell you," said Joe in a resigned tone, "I'm through here now. I never did belong here. I'm going up on the mountain to see Cole Mynor. That's a he-man job. I won't have to prove I am an executive. An' I can draw down a better 'take-home'. From now on, the first guy who hands me any booshwah gets crowned. I'll take nothin' from nobody no more. That's me all over, Mabel." Joe leaned forward again and held out his hand for his handkerchief. Frank shook his head.

"Hand me my snot-rag," said Joe

(In an introspective mood, Joe Bloe considers the qualities of a foreman and their relationship to the job. In this "frustration chapter" XI the light breaks and he resolves to put into effect the prerogatives which are his.)

JOE BLOE'S NOTE BOOK—No. 7

FOREMAN—Any one, with or without authority, who receives and transmits directives concerning production or policy and who is held responsible and accountable for the end result.

(That's me and then some. Only that definition don't go far enough. It ain't completely clear. If the dictionary just said, 'The fall guy', or 'The guy in the middle' it would make sense to me.

When I started at the *Bladder*, there were two bosses. The Old Man was one. Bullah D. Woods was the other. Them days the Old Man didn't have much to say. I guess the Old Man gave "Bull" the job because he was bigger and tougher and could yell louder than any other hard boiled egg in Tincup. Gee, what a job he did. He had everybody scared all the time. But, I learned plenty from him and most of it was how not to get along with people. Junior's Slouch Mastor called that 'inverse proportion'. I guess he meant that I would learn to do the exact opposite.

Gee, I remember the time the Old Man first hinted to me that he considered me good foremanship material. He worked me up so cute, I went around in a daze for months thinking I owned the joint. I guess I did three men's work for two years before the promotion became real. When I think of it now, it almost seems as tho the harder I worked the less respect the Old Man had for me. It looks like that's the case right now.

I guess my trouble is that I am too conscientious. If someone don't do something, I pitch in and get it done. If I do that too often for people who ain't square, they expect it all the time . . . Then, when I get tired of doing other people's work and tell them to do it themselves pronto, immediate, right now, at once, they complain to the Old Man and say I pour it on 'em.

When two men
Ride a horse
One must ride
behind.

Everytime I sit back and kinda look in a mirror I can see myself the way the other guy looks at me. Then, I can't blame the other guy for squawking. I can see it's my own fault. When I am firm and fair and stick to it I don't have trouble. But, everytime I let the bars down and start being too darn good to some people they nail me for a sucker, Jeez, that's when the Old Man rubs it in.

So, from now on, I'm gonna look a hole through everyone I work with. The one's I can trust I'll count on my little finger. I won't get mad because one guy gypped me and then take it out on all the rest. I'll just get smart and see to it that the wise guys are stopped dead in their tracks. That'll save me getting mad. Everytime I get mad, it upsets me. That don't make sense. When the wise guys see me get mad they know they put one over on me. As long as they can put something over, they got no respect for me. So, I'm gonna do like Ernie said I should do. I'll do more thinking and use my hands and feet less.

Sometime ago I joined a foreman's club. I learned a lot about what makes the mare go. From the stories the other boys tell me, I can see I'd be a damnphool to get a job somewhere else just because the grass looked greener in the distance. I'd have just as much trouble, maybe more. The only difference is that the troubles would be new ones because new people would be involved.

I make my own trouble here at the *Bladder*. I always stick up for the men when I think they are right—and I stick up for the Boss too when he accidentally happens to be right. But, I gotta learn a new technique. I'm the guy in the middle so I gotta work out a system to keep both the Boss and the men happy and my nose clean at the same time. It's about time I wised up so I don't get caught short no more.)

threateningly. "Gimme. Can'tcha see? The blood is bleeding. Fork it over."

Frank held the rag behind his back. He shook his head and sneered as he said: "You belong in the mines. You have the sense of a blind mine mule. Everytime one of your men has a slight scratch, you force him up to Doc Sohr Bones office. Skip up there and take your own medicine."

"I ain't never hadda see him," said Joe sourly, "an' I ain't gonna start now. Some of these panty-waists around here go up to see him when they choke on a hunk of ice cream. Not me. Gimme that rag. Pronto. before I bop you one."

"Cut it out," said Frank with a smile, "get going. We've had our fun. You have no rep for accident proneness. You are too smart to let the wiseguys call you a dumb cluck. I'll wait here til you get back. I'll need your help on some parts numbers. We can't look through the book when your fist is messed up."

The Doc was reading a book as Joe stepped into the first-aid room. Facetiously, Joe said, "Doc, I got mad and slammed my lunch-hook right through the window in the door with my name painted on it." The Doc grinned his disbelief and started ribbing Joe good naturedly. Between chuckles and laughter he needled Joe into answering many questions. Soon Joe was hitting the high spots of his career at *The Bladder*. Doc stopped laughing when Joe told of waiting at the office on Sunday. His expression changed completely when Joe explained his call-back from vacation. When Joe's hand was dressed, Doc slapped Joe on the back and said, "You are all set till Wednesday, next week. Keep your shirt on and don't get your bowels in an uproar. So long."

Frank was pretending a nap as Joe returned to his office. Joe was feeling so good after unburdening himself to the Doc that he let his foot fly at the rickety chair. Frank cussed as he picked himself up from the floor and then said, "If the Old Man saw that performance he would read you a lecture on executive dignity and responsibility."

"Dignity belongs in a museum," chirped Joe as he parked himself. "Doc gave me the right answer. He said I should be myself. He's a swell guy. He has a flock of gimmicks and no place to put 'em. Some Sunday I'll sneak some shelves in there. I'll keep him guessin' about who did it."

Alone in his "ear-conditioned" office, Joe said out loud to himself: "What is the matter with me, anyway? For fifteen minutes I had Old Mossback Daub on the merry-go-round. The next thing I know he's pulling the levers . . . That's the way it works out every time."

"Here we go again," smiled Frank. "Won't you ever get wise to yourself? You are different from most people. You want to do things for others. You must stop these guessing games. You don't need to stick out your manly chest and brag about the things you do. If your inferiority complex won't let you deliver the shelves to Doc in person, then leave a note. People get double pleasure out of a favor if you let them talk about it. Your constant gripe is that you never hear nice things about yourself. Suppose you set some sort of an example. People will always react in kind. Ask the Parson about that some time."

Hi Mercury, the wingfoot messenger, arrived at Joe's open door. Silently he handed a message to Joe. Scrawled across the envelope in large red script were the words, RUSH—MUST. Joe ripped open the envelope with a glance to Frank as an apology and read the note. His brow furrowed as he read it again. His breath whistled through his teeth and he collapsed against the wall. Without a word he handed the note to Frank who read:

The BLADDER

Office of the Publisher

June 6, 1943

Joe Bloe, Foreman,
The Bladder.

Dear Sir: It has come to my attention that you have completely disregarded my instructions as to your vacation period. Your definite instructions were to report to me next Monday—not today.

I will expect you to comply explicitly with my instructions.

If you are found, for any reason, on the premises during the balance of your vacation period, it will be cause for summary dismissal.

S. N. DAUB, President

SND–if

After Joe recovered his breath he muttered, "Looky. No matter what I do, the old cockroach twists it around to put me in wrong. If this building caught on fire while I was a thousand miles away, he would make it all my fault. It ain't fair. He made me come down on Sunday. He put it to me in such a way I hadda come down today. Now he threatens to fire me for showing up. What's square about that? Why do I always get the short end of the string?"

"Here we go again," said Frank laughingly, "come on, snap out of it. All this talk goes in one ear and out of the other. The Old Man must keep his dignity. He won't admit he has been off-base. Can't you see what has happened? Your friends are working for you. I'll gamble that Doc Sohr Bones gave him hail columbia. When you get smart you will take a good look at the Old Man and get his number. Then you'll love him for his shenanigans."

"Its about time he gets hell and I get a vacation," yelled Joe as he grabbed his hat. "I don't love him and I don't want to look at his homely mug for another week. Alleyoops."

(*Two more installments to go*)

Company Acquisitions

Nolan Corporation, Rome, New York, according to General Manager Ralph H. Nolan, has acquired the Acme Addressing Machine Co. recently. It has been announced that after the war the Acme Addressor will be made in treadle and motor-operated models. Addressing labels are printed from line-composing machine slugs, automatically inked through a carbon ribbon. Self-spacing mailing galleys hold the address slugs.

It has been announced by President Walter Goat of Fred Goat Company, 314 Dean Ave., Brooklyn, N. Y. that his company has purchased the Champlain Division of Interchemical Corp. Present company and plant of the Champlain Division will be maintained at 636 Eleventh Ave., New York. George N. Auerbacher will be retained as vice president and general manager of Champlain Division. The Champlain Division manufactures rotary web-feed presses for black and color printing labels and wrappers and the like for candy, tobacco, match and soap manufacturers' products. It also manufactures gravure presses.

Having Presses Checked Regularly Every Six Months Is Low-cost Insurance Against Costly Trouble

HOW often any press *requires* inspection by a competent mechanic depends upon its age and its use. When a press is on a good foundation and is kept properly lubricated, most parts rarely need attention. Other parts, such as racks, bed motion shoes, and air cushion rods should be checked frequently. A loose part at these points can lead to serious accidents. A system of regular periodic inspections can reveal the parts that become loose most frequently and permits attention to them before excessive wear and serious trouble can occur.—From Miehle *Wartime Care For Printing Presses.*

This comparison between 8 and 9 column pages prepared by The Rochester Times-Union Composing Room

NINE COLUMNS!

All measurements quoted were taken in the form before moulding and the measurements on this page will be different due to the shrinkage of the mat in casting plates. All column rules in this specimen page are 4 point body.

8 one column cuts 12 picas wide.

9 one column cuts 10½ picas wide.

8 one column heads 12 picas wide and 21½ inches of 7 point Ideal on 8 point body, set 12 picas wide, total of 184 lines spread over 8 columns.

Ciano Death Details Reported

Prof. James B. Hopkins

Easton, Pa.—Prof. James B. Hopkins, associate professor of modern languages and for 37 years a member of the faculty of Lafayette College, died Sunday (Jan. 9, 1944) in Easton Hospital after a brief illness. His age was 68.

He is survived by his widow; one son, Gordon; one daughter, Mrs. Raymond Downing; one granddaughter, Carol Downing, all of North Rose; and one sister, Mrs. Henry Earl of Rochester.

William H. Acker

North Rose—William Henry Acker, 65, died in his home in North Rose Sunday (Jan. 9, 1944) following a long illness.

Funeral services were to be held in the home on Gray Street today, at 2 p. m. The Rev. J. V. Darrow of the North Rose Methodist Church officiating. Burial will be in Rose Cemetery.

Mrs. Arthur Peachey

Bergen—Funeral services were to be held at 2:30 p. m. Friday in her home on the Lake Road for Mrs. Lulu B. Peachey, who died in Rochester General Hospital Monday evening (Jan. 10, 1944). Burial will be in Mt. Rest Cemetery.

Mrs. Peachey had resided here since shortly after her marriage on Aug. 2, 1911. She was a native of Chicago, member of Bergen Grange and Bergen Chapter, OES.

Besides her husband, Mrs. Peachey is survived by three foster children, Jean, Margaret and William Hayda, Chicago, and several nieces and nephews.

Thomas H. Bradley

Geneva—Thomas H. Bradley, 80, formerly of 40 Hallenbeck Ave., died Monday (Jan. 10, 1944), in Geneva General Hospital following a long illness.

He leaves a son, John F. Bradley and a grandson of this city.

The funeral was to be at 8:30 today in the Devaney Funeral Home, 304 S. Main St., and at 9 o'clock in St. Francis de Sales Church. Burial will be St. Patrick's Cemetery.

Mrs. Charles Harris

Geneva — The funeral of Mrs. Annie Harris, wife of Charles Harris, 14 Cherry St., will take place Friday evening at 7 o'clock in the Bennett Funeral Home, 207 Genesee St. The Rev. Alexander Thompson, pastor of the North Presbyterian Church, will conduct the prayer service.

Burial will be made in Glenwood Cemetery at the convenience of the family, decision pending contact with a daughter, Mrs. Frank Talomie, who is traveling with her husband, Lieutenant Talomie of the U. S. Army.

Frank T. Mosher

Geneva—Frank T. Mosher, 78, 11 Reed St., retired veteran employe of the New York Telephone Company here, died shortly after midnight yesterday (Jan. 11, 1944) in Geneva General Hospital following a long illness.

Besides his widow he leaves two daughters Mrs. Jane Kiehle, wife of Lieut. William D. Kiehle, U. S. Navy, Indianhead, N. J., and Mrs. Harriet Roberts, wife of Lieut. Edward Roberts, U. S. Army, Portland, Calif.; his mother, Mrs. William Bryce of Linwood, and three brothers, George A. Bryce of Mt. Morris, Alex Bryce of Linwood and William Bryce of Pavilion.

Mrs. John Rice

Bath — Mrs. Beatrice Rice, 50, wife of John Rice of Addison, died yesterday (Jan. 11, 1944) in Bath Memorial Hospital. She is survived by her husband and several children.

The survivors are his widow, Margaret; a son, Ellsworth of the U. S. Navy stationed in Washington, D. C. Mr. Mosher was a member of First Methodist Church.

The Rev. Harry L. Williams, pastor of the Methodist Church was to conduct funeral services in the Corwin Funeral Home at 403 S. Main St. at 4 p. m. today. Burial will be in Glenwood Cemetery.

Mrs. Fred J. Remington

Honeoye Falls—Funeral services for Mrs. Mary Rail Remington, 73, widow of Fred J. Remington, who died Monday (Jan. 10, 1944) in the Madsen Hospital, Honeoye Falls, were to be conducted at 2:30 p. m. tomorrow in the home of Dean Gaebel, Mendon Center. Burial will be in Honeoye Falls Cemetery with the Rev. John F. Buyer, pastor of Honeoye Falls Presbyterian Church, officiating.

The body has been taken to the Mayer Funeral Parlors in Addison.

Wade H. Hudgins

Albion — Wade H. Hudgins, 64, died early yesterday morning (Jan. 11, 1944) in his home at 128 W. Bank St. He had resided here for nearly 40 years. He was a commission merchant and produce buyer and traveled extensively through the West and South on buying trips.

Born in Grand Ledge, Mich., Mr. Remington had come to this locality as a child with her parents. She returned to Michigan later to live and had resided in Detroit for the past 30 years. She had been married 43 years, the late Mr. Remington's death occurring five years ago this month.

Surviving are a sister, Mrs. John Sheliman, Honeoye Falls, and several nieces and nephews.

C. Edith Tallman

Savannah—C. Edith Tallman, 58, a resident of the village of Savannah and a former teacher in the schools of Newark for more than 25 years, died unexpectedly yesterday (Jan. 11, 1944) in her home in Main Street. She is survived by two sisters, Dora M. and Mrs. Grover D. Glasgow, both of Savannah.

Mrs. Mary Brown

Mendon—Mrs. Mary Brown, 78, died yesterday (Jan. 11, 1944) in the home of her son, Raymond.

He was born in Charlotte, N. C. He was a member of Christ Episcopal Church and Renovation Lodge, F&AM.

Surviving are his widow, Anna Allen Hudgins; one daughter, Mrs. Clifford Barry, Medina; two grandchildren; two sisters, Mrs. Martha Berry, Charlotte, N. C., and Mrs. Ebb Miller, Atlanta, Ga., and two brothers, Paul and Gus Hudgins.

Mrs. Eugene Ernest

Middleport—Funeral services for Mrs. Elina Ernest, 85, widow of Eugene Ernest, whose death occurred Monday (Jan. 10, 1944) in the home of her niece, Mrs. Chauncey Bidleman, Ernest Road, were to be held today at 2:30 p. m. in the residence.

Farm Credit Unit Slates 10th Meeting

Indianapolis Defeats Providence

Keuka Plans Opinion of 'Wigwam'

Caledonia Defeats Churchville

Leafs Snap Montreal Win Streak

Relief Costs Show Drop In Hornell

Lyons Elks Plan Annual Ladies' Night

9 one column heads 10½ picas wide and same copy as above set in 7 point Ideal on 8 point body set 10½ picas wide, total of 208 lines spread over 9 columns.

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Caledonia Defeats Churchville

o'clock in the Bennett Funeral Home, 207 Genesee St. The Rev. Alexander Thompson, pastor of the North Presbyterian Church, will conduct the prayer service.

Burial will be made in Glenwood Cemetery at the convenience of the family, decision pending contact with a daughter, Mrs. Frank Talomie, who is traveling with her husband, Lieutenant Talomie of the U. S. Army.

Frank T. Mosher

Geneva—Frank T. Mosher, 78, 11 Reed St., retired veteran employe of the New York Telephone Company here, died shortly after midnight yesterday (Jan. 11, 1944) in Geneva General Hospital following a long illness.

Leafs Snap Montreal Win Streak

Besides his widow he leaves two daughters, Mrs. Jane Kiehle, wife of Lieut. William D. Kiehle, U. S. Navy, Indianhead, N. J., and Mrs. Harriet Roberts, wife of Lieut. Edward Roberts, U. S. Army, Portland, Calif.; his mother, Mrs. Bryce of Linwood, and three brothers, George A. Bryce of Mt. Morris, Alex Bryce of Linwood and William Bryce of Pavilion.

Mrs. John Rice

Bath—Mrs. Beatrice Rice, 50, wife of John Rice of Addison, died yesterday (Jan. 11, 1944) in Bath Memorial Hospital. She is survived by her husband and several children.

The survivors are his widow, Margaret; a son, Ellsworth of the U. S. Navy stationed in

Relief Costs Show Drop In Hornell

Washington, D. C. Mr. Mosher was a member of First Methodist Church.

The Rev. Harry L. Williams, pastor of the Methodist Church, was to conduct funeral services in the Corwin Funeral Home at 403 S. Main St. at 4 p. m. today. Burial will be in Glenwood Cemetery.

Mrs. Fred J. Remington

Honeoye Falls — Funeral services for Mrs. Mary Rail Remington, 73, widow of Fred J. Remington, who died Monday (Jan. 10, 1944) in the Madsen Hospital, Honeoye Falls, were to be conducted at 2:30 p. m. tomorrow in the home of Dean Gaebel, Mendon Center. Burial will be in Honeoye Falls Cemetery with the Rev. John F. Buyer, pastor of Honeoye

Indianapolis Defeats Providence

Falls Presbyterian Church, officiating.

The body has been taken to the Mayer Funeral Parlors in Addison.

Wade H. Hudgins

Albion — Wade H. Hudgins, 64, died early yesterday morning (Jan. 11, 1944) in his home at 128 W. Bank St. He had resided here for nearly 40 years. He was a commission merchant and produce buyer and traveled extensively through the West and South on buying trips.

Born in Grand Ledge, Mich., Mr. Remington had come to this locality as a child with her parents. She returned to Michigan later to live and had resided in Detroit for the past 30 years. She had been married

Lyons Elks Plan Annual Ladies' Night

43 years, the date Mr. Remington's death occurring five years ago this month.

Surviving are a sister, Mrs. John Sheliman, Honeoye Falls, and several nieces and nephews.

C. Edith Tallman

Savannah—C. Edith Tallman, 58, a resident of the village of Savannah and a former teacher in the schools of Newark for more than 25 years, died unexpectedly yesterday (Jan. 11, 1944) in her home on Main Street. She is survived by two sisters, Dora M. and Mrs. Grover D. Glasgow, both of Savannah.

Mrs. Mary Brown

Mendon—Mrs. Mary Brown, 78, died yesterday (Jan. 11, 1944) in the home of her son,

LaPlaca Wins More Time For Appeal

Raymond.

He was born in Charlotte, N. C. He was a member of Christ Episcopal Church and Renovation Lodge, F&AM.

Surviving are his widow, Anna Allen Hudgins; one daughter, Mrs. Clifford Barry, Medina; two grandchildren; two sisters, Mrs. Martha Berry, Charlotte, N. C., and Mrs. Ebb Miller, Atlanta, Ga., and two brothers, Paul and Gus Hudgins.

Mrs. Eugene Ernest

Middleport — Funeral services for Mrs. Elina Ernest, 85, widow of Eugene Ernest, whose death occurred Monday (Jan. 10, 1944) in the home of her niece, Mrs. Chauncey Bidleman, Ernest Road, were to be held today at 2:30 p. m. in the residence.

21½ inches of Want Ads set in 6½ point Ideal on 6 point body 12 picas wide, total of 226 lines and 47 rules, spread over 8 columns.

Officers' Club—East side. Attractive rooms, private baths, showers; privileges; on bus line. Monroe 7125.

Mother and daughter will share comfortable home with couple, rent for board, automatic coal heat, preferred. Hillside 2126-W. 714

Brighton—Beautiful home, practically new, studio living room, 4 bedrooms, 2 baths, screened porch, storm sash and screens, insulated; lot 100x200. By appointment only. Prayser, Hillside 2357-W.

Tenth Ward—Sterling St. Double. One side vacant, newly decorated. Interest and taxes $260. Total yearly rental $672. You can occupy one side next free. Price $3,800. Mortgage, $1,800. Owner anxious to sell. Wenner, Monroe 1006-R.

Tenth Ward. Double. Yearly income $672. Interest and taxes $190. Local bank mortgage. Will return better than 25 per cent on investment. Asking $3,800. Wenner, Monroe 1006-R.

Monroe 1006-R. 314x7-2-4

Cocker Spaniel—Lost, red, female. Very timid. Answers to Ginger or Ginnie. St. Paul Blvd., 23-24. Reward. Charlotte 2598-W. 712

Beagle—Lost, black and tan, vicinity North Street. Child's pet. Collar and nameplate. Reward. Stone 2220-R. 213

Chevrolet—1934 deluxe tudor, radio, heater, good tires, Johnny's Atlantic Station, 1606 East Ave., 9-2.

Plymouth—1934 4-door sedan, good tires, new set rings. After 5 p. m. Monroe 1660. 712

Saleslady—For dresses and coats; full or part time; experience not necessary, excellent salary and commissions. 274 E. Main. 30Jan24

Girl or middleaged woman, part time, assist light housework and cooking, family of two. Outside cleaning help twice weekly. Other work shared between you and me. No laundry. Private room and bath. Convenient to bus and subway. Permanent. Your wages. Monroe 916.

Mother's Helper — Couple hours daily, half a day Saturday; good pay. 247 Wilkins. Stone 3433-L. 212

Slip cover and drapery department salesladys; thoroughly experienced in designing and selecting fabrics and colors for home decoration. Permanent position in a very pleasant interior home furnishing store. Good salary and bonuses. Apply Cooke Lauer's, 50 State St. 713

Rent a frozen food locker to save your surplus animals. Brighton Locker Co., 1960 East Ave. 30Jan 20

Pressing Machine—Hoffman Klear Buck," boiler, and electric feed water pump; as a bargain. Kane's Furniture, 41 State.

Pressing Machine—"Hoffman Klear Buck," boiler, and electric feed water pump; at a bargain. Kane's Furniture, 41 State.

Bookcases—Adams flooring, interior trim, doors, windows, plumbing

Waitresses — One 10-7, one 2-12. Cook's Sandwich Shop, 210 East Main.

Pressing Machine — "Hoffman Klear Buck," boiler, and electric feed water pump; at a bargain. Kane's Furniture, 41 State.

Dining Room Suite — Nine piece, American walnut, perfect condition; kitchen cabinet; bed; dresser. Other household furnishings. 716

We buy, sell and do guaranteed repairs, all makes washing machines and sewing machines, prompt service, cheerful, free estimates; reasonable charges. Stone's Appliance Shop, 210 Monroe Ave., Main 6420. 713

General Fur Sale!! Call Stone 4765-J; Persian lamb coat, 14; Persian paw, 14, 18, $125; raccoon, 16; neckpieces, 6 old coats taken in trade. Epstein's, 193 Lyndhurst. 212

Lake, 415 — Studio living room, 4 kitchen, bath, heat, hot water. Adults preferred. $60 month. 716

Gas Range—Norman, white enamel, 4-burner, with side oven; excellent condition, $35. Hillside 2696. 715

We buy, sell, and do guaranteed repairs, all makes washing machines and appliances, prompt service, cheerful free estimates; reasonable charges. Stone's Appliance Shop, 210 Monroe Ave., Main 6420. 713

Darlmouth, 132 — Room, private bath; breakfast optional; reasonable; gentleman preferred. 713

Culver-Bay Section—Pleasant furnished room; gentleman preferred. Culver 432-W. 716

Officers' Club—East side. Attractive rooms, private baths, showers; privileges; on bus line. Monroe 7125. 713

Brown, 386—Lower, 3 rooms, large yard, toilet, electricity. $15. 713

Genesee, 1082—Five rooms, upper; all conveniences; garage. 713

Mother and daughter will share comfortable home with couple, rent for board, automatic coal heat, references exchanged. Hillside 2126-W. 714

Nineteenth Ward—$3,000. Bargain for workingman's home, good neighbors, nice yard, 6 rooms, good sound construction. Taxes, $10 monthly. Shown by Weber, Gen. 112.

Furnished apartment, 3 rooms, rear Park Ave. Hospital. Monroe 7205-J. 713

Immediate Possession: 5-5 Boston, on 50-foot terraced lot, located on the north side of Clarissa Street, and house east of Plymouth Avenue South. Assessed $3,600. Income $600. Price $4,200. Small payment down. Easy terms. Open for inspection Friday, Saturday, Sunday from 1-3. After wanted. This and several other houses on Plymouth Avenue South owned by me for over 40 years are now for sale. Owner, Culver 1204-R. 714

Brighton—Beautiful home, practically new, studio living room, 4 bedrooms, 2 baths, screened porch, storm sash and screens, insulated; lot 100x200. By appointment only. Prayser, Hillside 2357-W. 715

Executive, wife, son want furnished home. References. Walton, Main 453. 714

A snap, 16—Lower 4 large rooms, all conveniences. Monroe 7205. 713

Champlain St., 305—Big, substantial single; 3-car garage. Excellent H.W. heating system. $4,900. Settle later. Appointment only! Telfer, Monroe 48. 712x7-2

Lyell, 24—Well built, 6 rooms, open fireplace, lovely kitchen, beautiful bath, garage. Tenant moving. Excellent buy. Brockway, Main

Tenth Ward—Sterling St. Double, one side vacant, newly decorated. Interest and taxes $260. Total yearly rental $672. You can occupy one side next free. Price $3,800. Mortgage, $1,800. Owner anxious to sell. Wenner, Mon. 1006-R. 314x7-2-4

Furnished apartment, 3 rooms, rear Park Ave. Hospital. Monroe 7205-J. 713

Park Ave., 719—Three rooms, heat, electricity. Frigidaire. Mon. 300.

Same copy set in 6½ point Ideal on 6 point body 10½ picas wide, total of 251 lines and 47 rules, spread over 9 columns.

Officers' Club—East Side. Attractive rooms, private baths, showers; privileges; on bus line. Monroe 7125. 713

Mother and daughter will share comfortable home with couple, rent for board, automatic coal heat, references exchanged. Hillside 2126-W. 714

Brighton — Beautiful home, practically new, studio living room, 4 bedrooms, 2 baths, screened porch, storm sash and screens, insulated; lot 100x200. By appointment only. Prayser, Hillside 2357-W. 715

Tenth Ward — Sterling St. Double, one side vacant, newly decorated. Interest and taxes $260. Total yearly rental $672. You can occupy one side next free. Price $3,800. Mortgage, $1,800. Owner anxious to sell. Wenner, Monroe 1006-R. 314x7-2-4

Tenth Ward. Double. Yearly income $672. Interest and taxes $190. Local bank mortgage. Will return better than 25 per cent on investment. Asking $3,800. Wenner, Monroe 1006-R. 314x7-2-4

Cocker Spaniel—Lost, red, female. Very timid. Answers to Ginger or Ginnie. St. Paul Blvd., 23-24. Reward. Charlotte 2598-W. 712

Beagle—Lost, black and tan, vicinity North Street. Child's pet. Collar and nameplate. Reward. Stone 2220-R. 213

Chevrolet—1934 deluxe tudor, radio, heater, good tires, Johnny's Atlantic Station, 1606 East Ave., 9-2.

Plymouth — 1934 4-door sedan, good tires, new set rings. After 5 p. m. Monroe 1660. 712

Saleslady—For dresses and coats; full or part time; experience not necessary, excellent salary and commissions. 274 E. Main. 30Jan24

Girl or middleaged woman, part time, assist light housework and cooking, family of two. Outside cleaning help twice weekly. Other work shared between you and me. No laundry. Private room and bath. Convenient to bus and subway. Permanent. Your wages. Monroe 916.

Mother's Helper — Couple hours daily, half a day Saturday; good pay. 247 Wilkins. Stone 3433-L. 212

Slip cover and drapery department salesladys; thoroughly experienced in designing and selecting fabrics and colors for home decoration. This is a very pleasant, lucrative position in Rochester's most progressive home furnishing store. Good salary and bonuses. Apply Mr. Cooke, Lauer's, 50 State St. 713

Waitresses — One 10-7, one 2-12. Cook's Sandwich Shop, 210 East Main.

Pressing Machine — "Hoffman Klear Buck," boiler, and electric feed water pump; at a bargain. Kane's Furniture, 41 State. 716

Dining Room Suite — Nine piece, American walnut, perfect condition; kitchen cabinet; bed; dresser. Other household furnishings. 84 Gregory St. 716

We buy, sell and do guaranteed repairs, all makes washing machines and sewing machines, prompt service, cheerful, free estimates; reasonable charges. Stone's Appliance Shop, 210 Monroe Ave., Main 6420. 713

General Fur Sale!! Call Stone 4765-J; Persian lamb coat, 14; Persian paw, 14, 18, $125; raccoon, 16; neckpieces, 6 old coats taken in trade. Epstein's, 193 Lyndhurst. 212

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Brown, 386—Lower, 3 rooms, large yard, toilet, electricity. $15. 713

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Lyell, 24—Well built, 6 rooms, open fireplace, lovely kitchen, beautiful bath, garage. Tenant moving. Excellent buy. Brockway, Main 7202. 712x6x7x2

Tenth Ward—Sterling St. Double, one side vacant, newly decorated. Interest and taxes $260. Total yearly rental $672. You can occupy one side next free. Price $3,800. Mortgage, $1,800. Owner anxious to sell. Wenner, Mon. 1006-R. 314x7-2-4

Furnished apartment, 3 rooms, rear Park Ave. Hospital. Monroe 7205-J. 713

Park Ave., 719—Three rooms, heat, electricity. Frigidaire. Mon. 300. 716

Miniature reproduction of a full size newspaper page made up comparatively in 8 and 9 col. widths to illustrate saving in space which can be effected. Prepared under the supervision of Production Manager John A. Burke of Gannett Newspapers.

Technical Meetings . . .

ANPA Mechanical Conference—Hotel Statler, Cleveland, June 12, 13, 14, 1944. Arthur Burns, Chairman, Mech. Com. *Herald Tribune*, New York, N. Y. W. E. Wines, Manager, ANPA Mech. Dept., 370 Lexington Ave., New York 17, N. Y.

Iowa Mechanical Conference—Hotel Fort Des Moines, Des Moines, Ia., Sunday and Monday, May 21 and 22. Tod Bleuer, President, Davenport (Ia.) Democrat.

Pennsylvania Mechanical Conference—Penn-Harris Hotel, Harrisburg, Monday and Tuesday, April 10 and 11. Lester H. Butler, Chairman. Butler is Mechanical Supt. of Harrisburg (Pa.) Telegraph. Wm. N. Hardy, Mgr., Telegraph Bldg., Harrisburg, Pa.

Lithographers National Association—Edgewater Beach Hotel, Chicago, May 8-9-10. Lithographers National Association, 420 Lexington Ave., New York 17, N. Y.

New England Mechanical Conference—Hotel Statler, Boston, October 14-15. President, Glendon S. Magoon, Fitchburg (Mass.) *Sentinel*. Secretary-Treasurer, Walter C. Crighton, New London (Conn.) *Day*. Program Chairman, Geo. F. Marshall, Production Supt., Portland (Me.) *Press-Herald-Express*.

SPACE SAVING *in newspaper page graphically illustrated in minature reproduction — Savings approx. 12½%*

NEWSPAPER mechanical and production executives have proposed many different modifications in makeup for newsprint conservation from time to time. They have made many valuable suggestions which have resulted in important newsprint savings from a mechanical standpoint. Included among the suggestions have been the elimination of many time-honored typographical effects.

Consequently, these conservation suggestions have required cooperation from both management and the editorial department to make them effective. In one instance, the mechanical superintendent of a mid-western medium size newspaper succeeded in getting the editorial department to reduce the number and variety of heads from 22 different styles to a much less number. The mechanical executive force of a newspaper group, it will be remembered, presented an idea for drastically reducing the width of folio lines to 1 or 2 col. widths at the last ANPA Mechanical Conference in Chicago.

References to the conservation ideas mentioned above in no way are intended as a reflection upon the work which has been done in this field by John E. Allen, Gilbert Farrar and others. Some time ago the Miami (Fla.) *Daily News* redesigned its pages to effect a nine column makeup.

An interesting experimental page is shown in miniature in the accompanying illustration. This page was turned out by John A. Burke, production manager of Gannett Newspapers, Rochester, N. Y.

It will be noticed that this is a comparative page, made up of various kinds of type and illustrative matter such as composes the average newspaper.

Mr. Burke's comments upon the experimental makeup are interesting. A 12½% saving can be made in the space used for cuts, cartoons and heads but very little, if any, space can be saved in the space used for news matter and solid-set classified advertisements. Nine one-column halftone cuts, 10½ picas wide can be gotten into the page width instead of the usual eight 12-pica cuts in the 8 col. makeup.

In the regular news matter composition, the 8 col. heads are set 12 picas wide with 21½ in. of 7 pt. Ideal on 8 pt. body (12 picas) or a total of 184 lines, 8 pt. body. The overall width of the eight 12 pica columns, using 4 pt. column rules, is 98 picas and 4 pts.

In the section immediately below, using the same copy, and also set in 7 pt. Ideal on 8 pt. body 10½ picas wide, there are 208 lines of type spread over 9 columns. The overall width of the nine 10½ pica columns is 97 picas and 4 pts.

In the comparative 8 and 9 col. settings of want ads, the result is as follows: In the 8 col. makeup, there are 21½ in. set in 6½ pt. Ideal on 6 pt. body, 12 picas wide, making a total of 226 lines with 47 dividing rules. The same copy set with same matrix face, 10½ picas wide, totals 251 lines with 47 dividing rules spread over 9 columns. The rules used between the want ads are 1½ pt. body with ½ pt. face.

The width of the roll stock used for this comparative page was 66½ in. By adopting a 9 col. format with 4 pt. column rules, a 66 in. roll could be used. If 3 pt. column rules are used, the width of the newsprint roll could be reduced to 65½ in.

Orderly Disposal Paramount

PRODUCTION and mechanical executives should do some solid thinking about the immense quantities of equipment and supplies which will be released by Government following the close of the war. According to reliable information, surplus material, plants and machinery are estimated at from $25 to $75 billion value. It is true that redistribution of only a relatively small quantity of this stuff will directly affect the Graphic Arts Industries, but it is of sufficient quantity that the printing equipment and supplies field may be seriously upset if something isn't done to control the manner of distribution.

Some time ago, Rep. Wright Patman (D. Tex.) introduced the Surplus Property Act of 1943 (H.P. 3873) in the House of Representatives. This bill which is being sponsored jointly by Congressman Patman and Rep. Charles A. Halleck (R. Ind.) would secure a twofold result: (1) Uniform procedure for disposition of all surplus under one central agency, and (2) To channel back through normal trade routes as great an amount of the surplus as possible.

Under Rep. Patman's proposed bill, the Reconstruction Finance Corp., under chairmanship of Jesse Jones, would appoint an advisory committee for each class of property which is to be sold or leased. These would advise on price, time, method and manner of disposing for each class of property.

The RFC would be governed by these considerations:

1. Distribution of such property should be through established trade channels.

2. The acquisition of large quantities of such property for speculative purposes should not be permitted.

3. The prices at which any particular property or class of property is sold or leased should be uniform.

4. Such property should be sold or leased at prices high enough to enable the government to secure a fair return.

5. The sale or lease of such property should be at a rate which will not unduly disrupt trade and commerce.

6. The welfare of small business enterprises should be considered whenever possible.

Printing Equipment Engineer is advised that a copy of the Patman-Halleck bill (H.R.3873) may be obtained from your congressman, or from Dan W. Eastwood, Chief Investigator, Select Committee on Small Business, Room 227, House Office Bldg., Washington, D. C.

Captain Thomas E. DePoy, of Minneapolis, Minn., for many months Adjutant of the Base Headquarters at Pope Field Army Air Base, an installation of the I Troop Carrier Command. has been advanced to the position of Personnel Officer at Pope Field, Ft. Bragg, N. C.

One-Inch Reduction in roll width to 64½ in. at St. Louis Post-Dispatch, through simple mechanical changes, results in substantial newsprint conservation

By CHARLES J. HENTSCHELL*

*Production Manager, St. Louis *Post-Dispatch*.

EDITOR'S NOTE:

FOR some months now, *Printing Equipment Engineer* has noted that executives of the Printing and Publishing Division of the War Production Board have shown a tendency to prefer ocular demonstration that print paper conservation be effected through physical changes in the size of publications. We assume this preference is expressed because the physical changes in the size of publications will be more readily perceptible to the reader—and thus he will feel that publications actually are participating substantially in the home-front effort to conserve materials used for civilian consumption. All printing executives, however, know that in many cases management has been conserving newsprint "invisibly" to the reader by rationing advertising and by non-promotion of subscriptions. Anyhow, here is an account about print paper conservation which should be of interest to all newspaper executives.

COMMENCING with its Sunday, January 9 issue, the St. Louis *Post-Dispatch* started printing from 64½ in. paper. The change in paper roll width was made from 65½ in. width paper which had been used previously. This newsprint conservation of 1 in. represents a 1½% saving in newsprint. In the case of the *Post-Dispatch* the saving amounts to approx. 30 T. per month, or to put it another way, 16 pages of advertising.

Since all readers of *Printing Equipment Engineer* are technically minded, the mechanical changes will be discussed first in this article.

Previous to making the change to narrower width paper, we used 12 pica columns. Slugs were indented 1 pt. on each end. We also used 3 pt. column rules.

Since making the change to 64½ in. paper, we still use the 12 pica slugs (eight columns across the page) but they are indented 2 pts. on each end. In connection with 1 pt. column rule and the 2 pt. slug indention, we have now secured the optical effect of 5 pts. between columns.

To summarize the saving in width across the press plate cylinder, the reduction from 3 pt. column rules to 1 pt. provided 3/16 in. per page, or ¾ in. across the full roll. We secured an additional 3/16 in. from the center rings on the plate cylinder. These center rings had never been cut down and the center or press margins in the paper were a strong 9/16in.

The 3/16 in. secured from the center rings plus the ¾ in. provided by the 1 pt. column rules gave us a total of 15/16 in. The final 1/16 in. was split between the two outside margins, so we have retained 7/16 in. margins on all pages in the printed paper with 1 in. less newsprint.

The interesting thing that makes possible the change to 1 pt. column rule without loss of slug production is the use of slug indention by means of which the 12 pica slugs are indented 2 pts. on each end. We are using under license the slug-indenting patent[1] owned by L. E. Owens of the Rio Grande Valley Newspapers of Harlingen, Tex.

One of the important elements in newspaper publication is to secure reader-reaction with respect to proposed physical changes, as well as to consult eye experts so that reader-convenience will not be jeopardized.

At one time, Douglas C. McMurtrie made the observation that the use of small point size column rule would tend to cause the reader's eye to read right on across the rule into the next column. We felt we had overcome this criticism by providing normal white space between the type columns by indenting the slugs at each end.

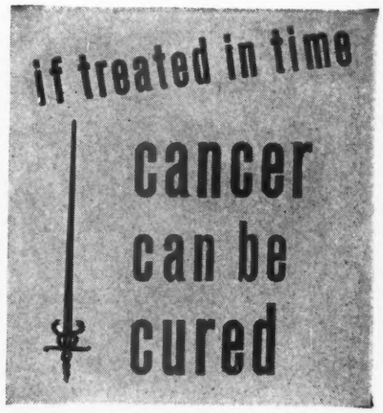
The *Post-Dispatch* consulted two prominent St. Louis oculists. Their opinions gave a clear signal so far as readability is concerned.

Another reaction was obtained from Thomas F. Barnhart, Professor of Journalism of the University of Minnesota. Professor Barnhart exhibited to members of the University teaching staff a copy of the *Post-Dispatch* as it appeared before making the change, and a copy which had been specially printed before the scheduled date for changing to the narrower roll width. The opinion of the members of the staff who were consulted was unanimous that both papers were equally easy to read. Professor Barnhart also consulted Miles Tinker, Professor of Psychology, who has made 30,000 type experiments. His opinion after comparing the two papers is that the narrower column caused no loss of legibility.

Previous to making these mechanical changes, we made no mention of it to national advertising agencies, inasmuch as it has been our experience that they have always furnished plates the width of which is well inside the specified measurement per column. However, we did send out a card to local advertisers and engraving plants so that cuts and copy prepared locally could be made for the required new width. At the time this article is being written we have not been forced to change or alter in any way any national advertising copy during the month the new page width has been in effect.

[1] Editor's Note—U. S. Patent No. 2,195,467, entitled method of composing, casting and making up line slugs for multiple column printing. A particular object of this invention is to secure economy in the use of paper and improved appearance of the printed page by a novel method of composing and casting line slugs wherein the matrices for each line are condensed to an imperceptible degree and the ends of the lines are indented from both ends of the slugs without substantial reduction of the number of matrices in each line. For example, to produce an indent equal to 1½ pts., the vise jaws are closed from their flush right and left positions 1½ pts. each. A further claim of the inventor is that the resultant indented slugs are made up in uniform columns with narrow, type-high column rules whereby column spacing substantially greater than the width of the column rules is obtained and the columns are condensed laterally.

Aside from the St. Louis *Post-Dispatch*, the right to use this patented method has been extended to the San Francisco *Chronicle*, Seattle (Wash.) *Times*, St. Paul (Minn.) *Dispatch* and *Pioneer Press*, Duluth (Minn.) *Herald* and *News Tribune*, and the Rio Grande Valley (Tex.) Newspapers.



Learn the danger signals! Get early diagnosis and prompt treatment. Delay is dangerous! Enlist as a Volunteer in the Women's Field Army of your State and support its activities for Cancer Control.

AMERICAN SOCIETY FOR THE CONTROL OF CANCER
350 MADISON AVENUE, N. Y. 17, N. Y.

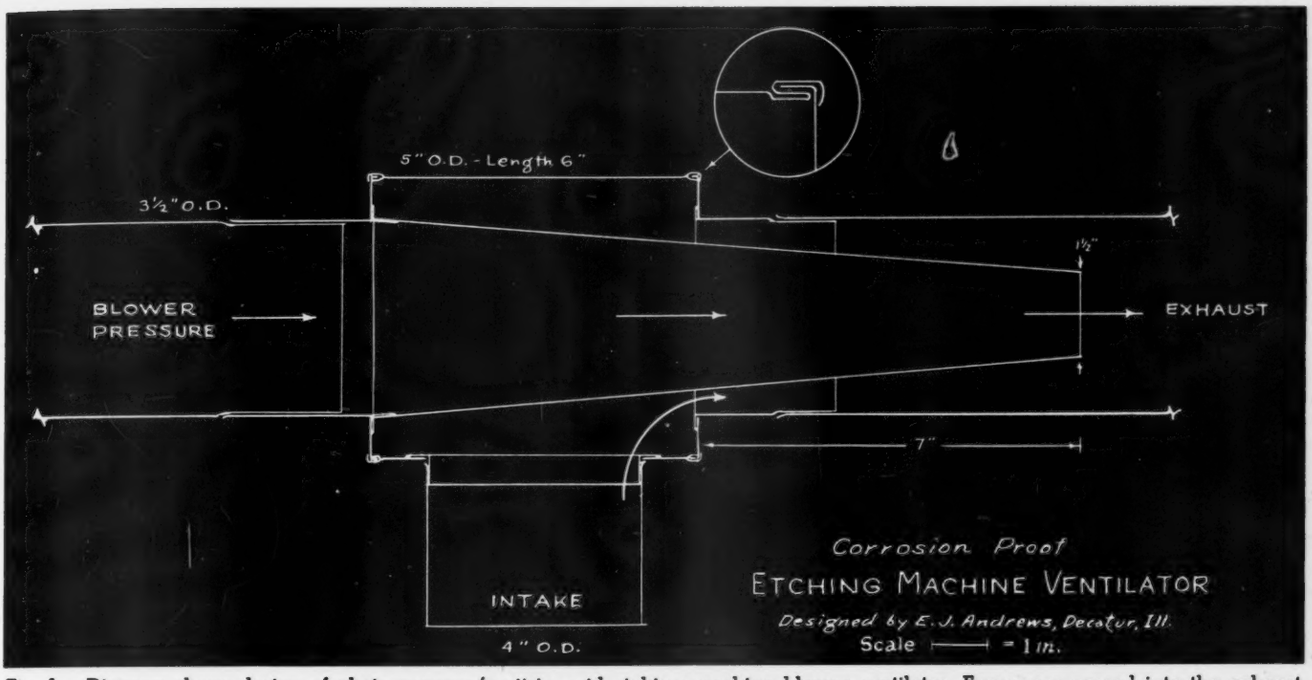


Fig. 1.—Diagram shows design of photo-engraver's nitric acid etching machine blower ventilator. Fumes are passed into the exhaust pipe without coming in contact with the blower or the motor. Mr. Andrews states a — h.p. forge blower should be efficient for the average nitric acid etching machine.

Corrosion-Proof Etching Machine Ventilator

By E. J. ANDREWS*

*Decatur (Ill.) *Herald & Review.*

ACID fumes can be "jerked out" of a zinc etching machine in the same way smoke is exhausted from a locomotive, without the acid fumes passing through the blower. This prevents expensive destruction of blower and motor by the acid fumes.

Creating a flue draft by injecting gas under pressure has been developed to high perfection in locomotive design. Exhaust steam from the cylinders is blasted through a nozzle into the smoke stack. The vacuum created not only removes the smoke but furnishes forced draft for the fire-box located at the far end of the boiler.

The same principle is utilized in the ventilating system described here. We have found it of great practical value. It works. There is no corrosion problem and a most disagreeable maintenance problem was solved. Actually, there is no maintenance.

Reference to the drawing Fig. 1, reveals simplicity in design and the halftone illustration, Fig. 2, shows how neat the installation turned out.

No fumes pass through the blower or near its motor. Blower pressure—not suction—is used. The greater the pressure and consequent increased velocity of air leaving the nozzle, the greater the suction in the intake pipe connected to the etching machine tank. The fumes are blown outside. Also the proportionately great amount of air from the nozzle so dilutes the acid-laden air from the machine that there are no objectionable traces of acid on the outside.

The suction required is simply a matter of blower capacity and horsepower. Excessive lengths of ducts will require larger blower capacity. However, a ¼ h.p. forge blower should be efficient for the average nitric acid etching machine.

Cleanliness and freedom from maintenance are of great advantage where nitric acid is present.

The use of stainless steel and straight ducts prevent leaks in our etching machine. The metal stays clean and bright.

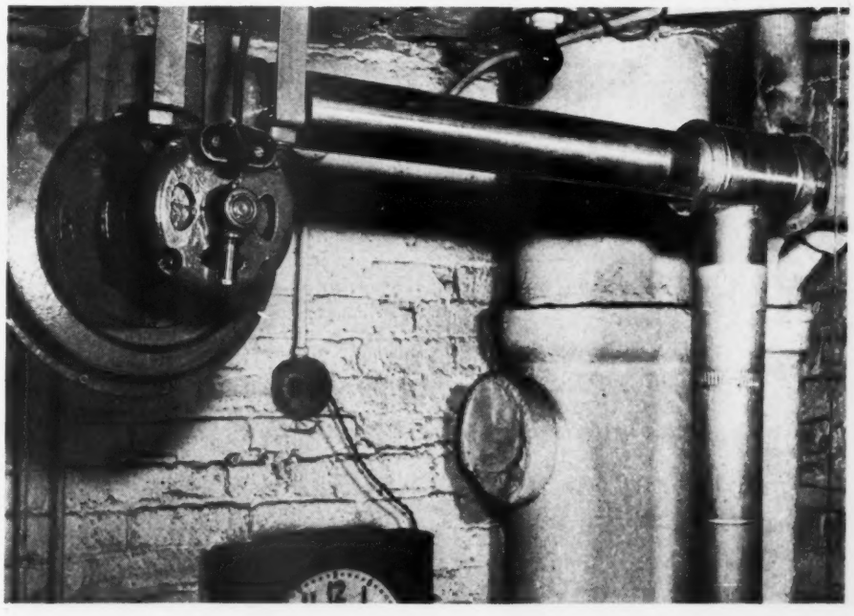


Fig. 2.—This illustration shows how an old forge blower was rigged up to ventilating system for nitric acid etching machine in plant of the Decatur (Ill.) *Herald & Review*. Acid fumes do not pass through the blower nor near the blower motor. The blower was originially equipped with a — h.p., 3600 r.p.m. motor, but instead a — h.p., 1800 r.p.m. washing machine motor was installed.

Absence of noise in the ventilator system required mounting a red pilot lamp on the ceiling to indicate that the blower is in operation.

Switches for both blower and etching machine are also mounted on the ceiling, being operated by pull-cords. This eliminated acid-corrosion of wiring and switches formerly mounted on the machine.

Any condensation moisture simply falls down into the machine. A slight fall in the exhaust tube enables any moisture as well as wind-driven rain to go back out of the building.

Construction of the T, nozzle and necessary pipe is not difficult for a well equipped sheet metal shop. All joints are either formed with Pittsburgh lock seams, spot-welded or both. Solder and sheet metal screws (unless stainless steel) cannot be used around nitric acid.

It is possible to obtain stainless steel for this purpose under MRO. At least we did and it is far easier than trying to find acid-proof blowers and motors even in peace time.

Some experimentation is recommended. The blower capacity, length of duct work, size of nozzle opening and the distance it projects into the exhaust tube are important factors. It is rather easy to make a model out of mailing tubes or tubes made from heavy wrapping paper. A cardboard box will serve as a junction or tee. Tubes should approximate in size and length, the metal ones to be used in the real system.

The amount of suction at the intake can be determined with pieces of heavy cardboard. The heaviest piece held, when slapped across the intake, shows maximum efficiency of the various combinations of nozzle opening and location in the exhaust. The vacuum is created where the air leaves the nozzle and expands in the exhaust.

The blower can be located anywhere away from the etching machine. Duct lengths should be as short as possible and 90 deg. elbows avoided.

The vertical stack in the photo is 4 in. diam. and is fitted into the 3 in. opening in the etching machine tank with a cone-shape reducer. All other tubes are 3½ in. diam.

The joints must be tight fits in the interest of securing maximum lift or draft in the intake line. If the pipe joints are spot-welded, a rigid and permanently secure duct system will result, preventing development of leaks later on. Spot-welding is not hard to do if the sections are short enough to fit over the electrode arms of the welding machine. Asphalt or pitch compounds are useful in sealing small air-leaks. They should be applied in the joints rather than smeared on. Good sheet metal workmanship will not need much caulking.

Equipment and Supplies . . .

Plastic-Paper Offset-Lith Printing Plates

SOME interesting manufacturing and operating data with respect to the Plastolith plastic-paper printing plate for offset-lith printing has been given in a recent announcement. The plastic-paper plate is flexible and is made of paper and plaskon resin glue. In manufacturing these plates, paper sheets are bonded together with waterproof plaskon urea-formaldehyde resin and their outside surfaces are coated with this material.

The printing side of the plate is coated with three layers of a special alcohol and clay emulsion. After being trimmed, the plate is ready for the plate-maker. It is stated that these plates can be manufactured with existing machinery in practically any paper mill.

Apparently, the plates are not entirely available to lithographic plate-makers for civilian use at the moment. Claims are made that the plastic-paper plate weighs only a fraction of a comparable metal plate, thus reducing shipping costs; the non-metallic plates can be stored in less space, and since they are impervious to action of air or water, do not need protection in storage.

The plastic plates are used in offset printing in the same manner as metal plates.

It is stated by sponsors of the plastic-paper plate that the life of an albumin plate is dependent to a large extent upon the pressman as well as upon the character of the paper and ink used. In the case of certain plants runs as high as 100,000 to 200,000 copies have been obtained from the plates. The latter figure, of course, is an unusually long run with albumin plastic or metal plates. It is also stated that the image produced from plastic-paper plates is minimized probably due to the swelling of non-printing areas as well as to changes which the inventors have made in the albumin sensitizer used in preparing the plastic plates.

With respect to water-logging, it is said, the water-proof plaskon resin glue coatings on the printing side keep water and chemicals from penetrating into the cellulose fibre in the center structure of the plate.

When asked about damage to the plate when it is fastened on the press cylinder, our informant stated: "On all presses, whether metal or plastic is used, bending the plate over the edge of the gap in the cylinder tends to damage the surface of the plate. On metal, it may damage the grain, causing the plate to wear on this edge, thus developing a smut line. It has been found that if similar damage occurs to the plastic plate the smut line is thinner."

Ejector Dryers An Aid in Producing Allied Currency

Not so long ago, it was necessary to print paper currency for one of our allies. In making this money, an essential in defeating counterfeiters is to produce it by steel plate printing. The Security Banknote Co., Philadelphia, was selected to do the job, which had to be turned out rapidly.

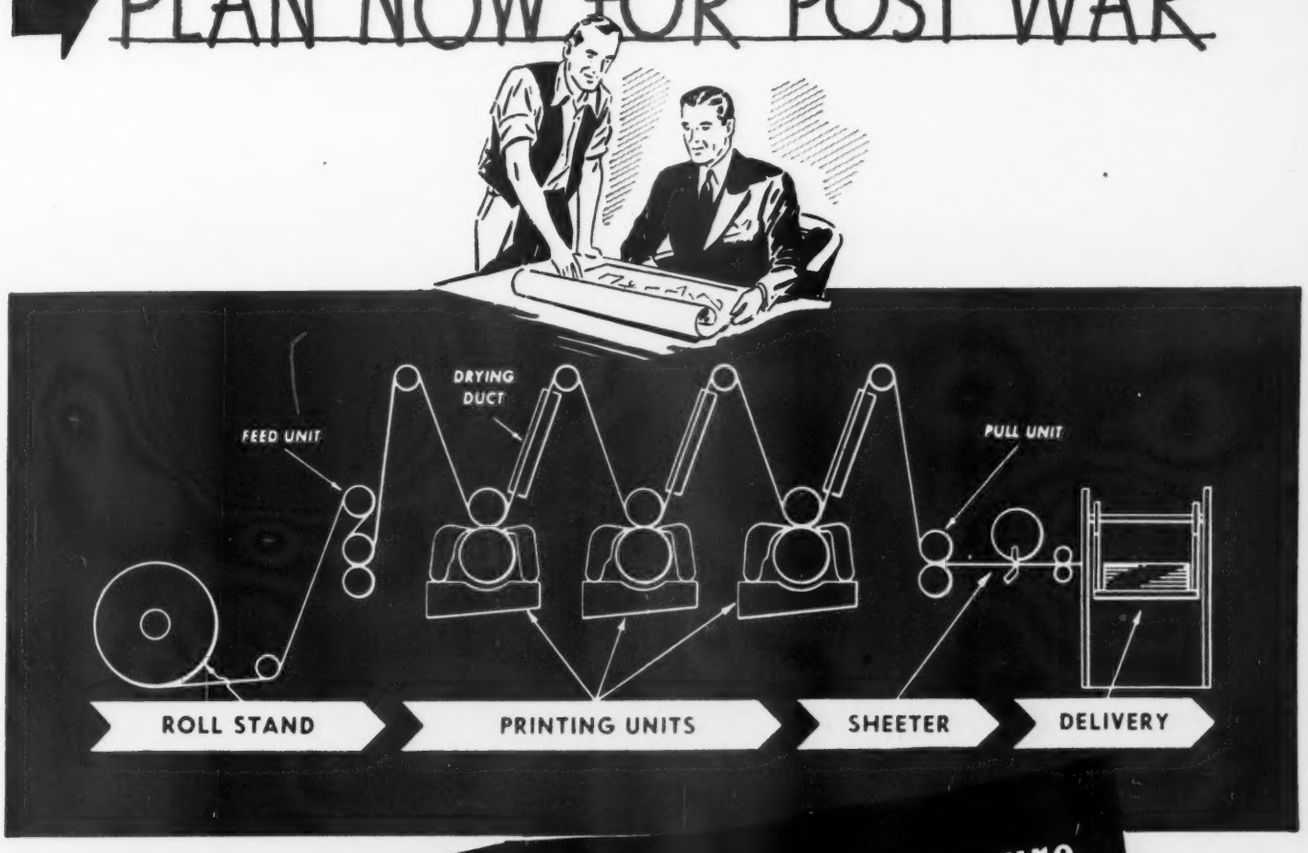
One of the problems in producing the money was to provide a means for drying and conditioning the paper. Carrier Corporation undertook the solution of this phase of the job with ejector dryers. The sheets are hung by clips in three layers. The air for drying is discharged downward through nozzles located in a distributing duct running down the center of the room. The ejector effect of the high velocity air from the nozzles sets up a circulation of approximately three times the quantity of air that is delivered from the apparatus. This type of circulation assures uniform drying throughout the entire space, and through the layers of the suspended sheets.

Bonding of Metals With Plastics

The printing of postage stamps, currency, war bonds and other Government securities requires the use of large numbers of metal printing plates. The plate ordinarily consists of a reproduction of the engraved master plate, usually obtained by electrolytic means, fastened to a suitable base. The union of face and base is obtained by a combination of soldering and spot welding. Despite the high degree of success attained, the method entails some drawbacks, such as flattening and straightening after warping, etc. As part of a research program in the Division of Metallurgy sponsored by the Bureau of Engraving and Printing, tests are under way to determine the merits of plastic bonding agents to supplement or to replace the soldering-and-welding method.

Several plastics suitable for metal bonding have been developed, but their extended industrial use has been held up by the war. However, a series of service tests on plastic-bonded printing plates has been started, and very promising results are being obtained. It will be necessary to extend the test runs over a long period and to conduct some tests under adverse conditions to establish definitely the possible merits of the new process for the desired use.—*Technical News Bulletin.*

PLAN NOW FOR POST WAR



Consider the Advantages of Rotogravure for PACKAGE PRINTING

With instant drying Gravure inks it is possible for you to print any number of colors, one on top of another, and fabricate or rewind the printed stock without offset . . . eliminating drying time between operations and resulting in greater production capacity.

The simplicity of the gravure principle eliminates makeready, permits rapid changeovers and puts an end to many of the difficulties of register control encountered when drying-time must elapse between printing of colors or between printing and fabricating.

The Speedry enclosed ink fountain—a patented feature of all CHAMPLAIN rotogravure presses—permits a complete new conception of ink application. The ink remains uniform; no splashing onto the web is possible; and the fountain protects the ink from foreign particles. Highly volatile solvents may be used without fear of evaporation in the fountain.

A wide variety of stocks have been printed successfully by rotogravure including cellophane and glassine.

Write today for booklet entitled "Advantages of Gravure for Package Printing."

Champlain

Division of The Fred Goat Co. Inc., Est. 1893
636 ELEVENTH AVE., NEW YORK 19, N. Y.

• • *Manufacturers of Rotogravure, Aniline and Typographic Presses* • •

Ayer Award Stimulated By Newspaper Conservation

The first nation-wide survey of the many ingenious changes in format and type dress by means of which the newspapers of America are saving paper for the war effort, will be provided by the 14th Annual Exhibition of Newspaper Typography, announced by N. W. Ayer & Son, Inc. for April 20th.

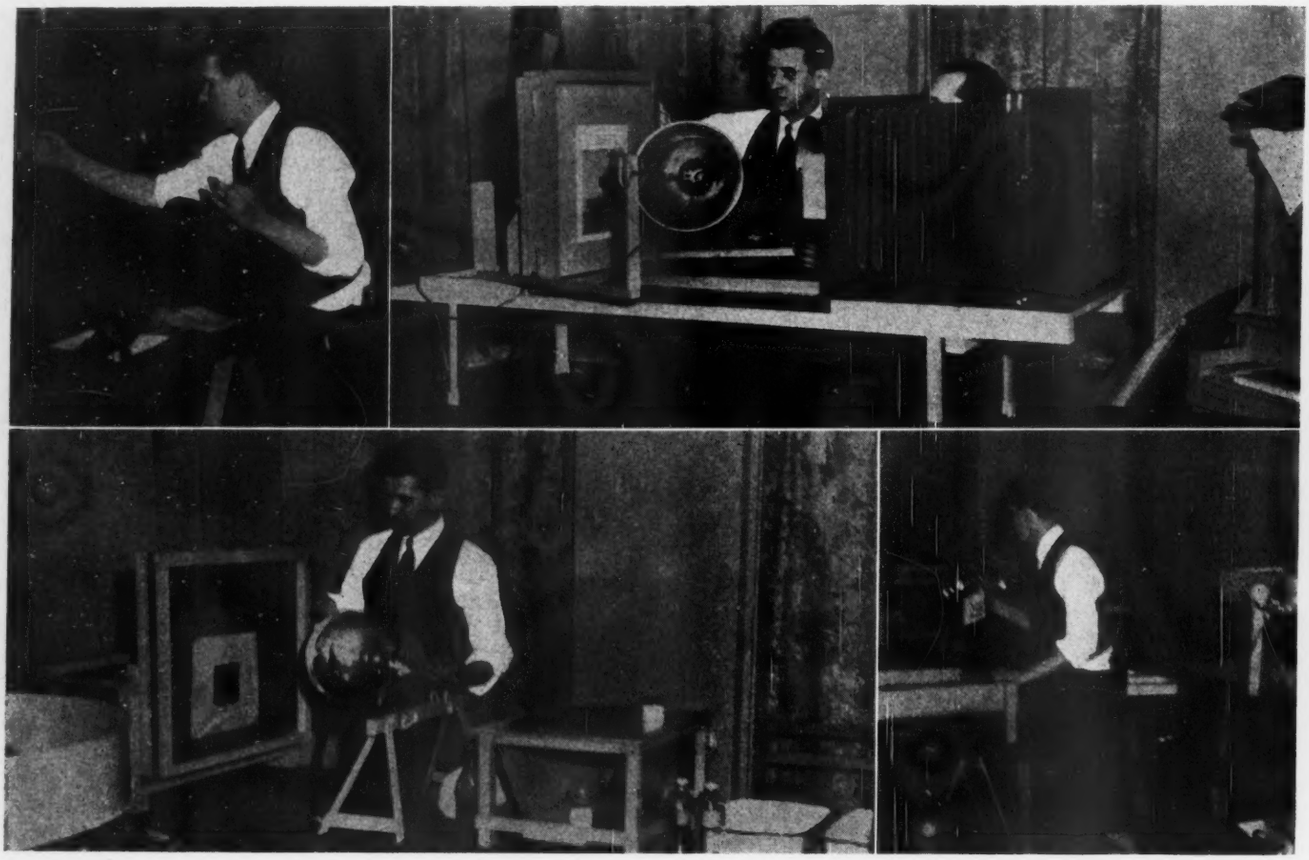
The most effective of these wartime treatments will be selected from among many hundreds of daily newspapers by a group of judges, and the results will be made available to all newspapers. This year, the degree to which the normal content of the newspaper has been preserved will be a factor in the judging, as well as the traditional considerations of typography and format.

The importance of this matter both to the newspapers and to the nation was pointed out by H. A. Batten, President of N. W. W. Ayer & Son. "In this war for freedom," he said, "paper has become a military necessity. Yet there can be no true freedom without a free and effective press. The saving of paper and the preservation of the effectiveness of the press are among the most vital problems with which we are confronted today."

The F. Wayland Ayer Cup is awarded annually to the newspaper which in the opinion of the judges is outstanding without regard to circulation or page size.

After the judging the newspapers entered in the Exhibition will be placed on display in the Ayer Galleries, West Washington Square, Philadelphia, and copies of the winning newspapers will be displayed also in other cities. A full technical description of the winning paper-saving methods will be provided for all newspapers, printing and advertising journals, etc.

The date of publication required for all entries will be chosen by lot from among the weekday dates in the week of March 6. The drawing will take place after that week has passed.



Unique Craftsman's Educational Program—A unique educational program, especially for motor-minded Craftsmen, was carried out at the February meeting of the Cleveland Craftsman's Club. The speaker was Wayne Gaspar, Superintendent of the R. E. May Co. Inc., offset-lith platemakers to the trade. Before members of the printing fraternity, Mr. Gaspar made an albumin offset-lith printing plate. With informal running commentary, Mr. Gaspar explained the process from receipt of copy to the finished plate ready to be mounted on the press cylinder.

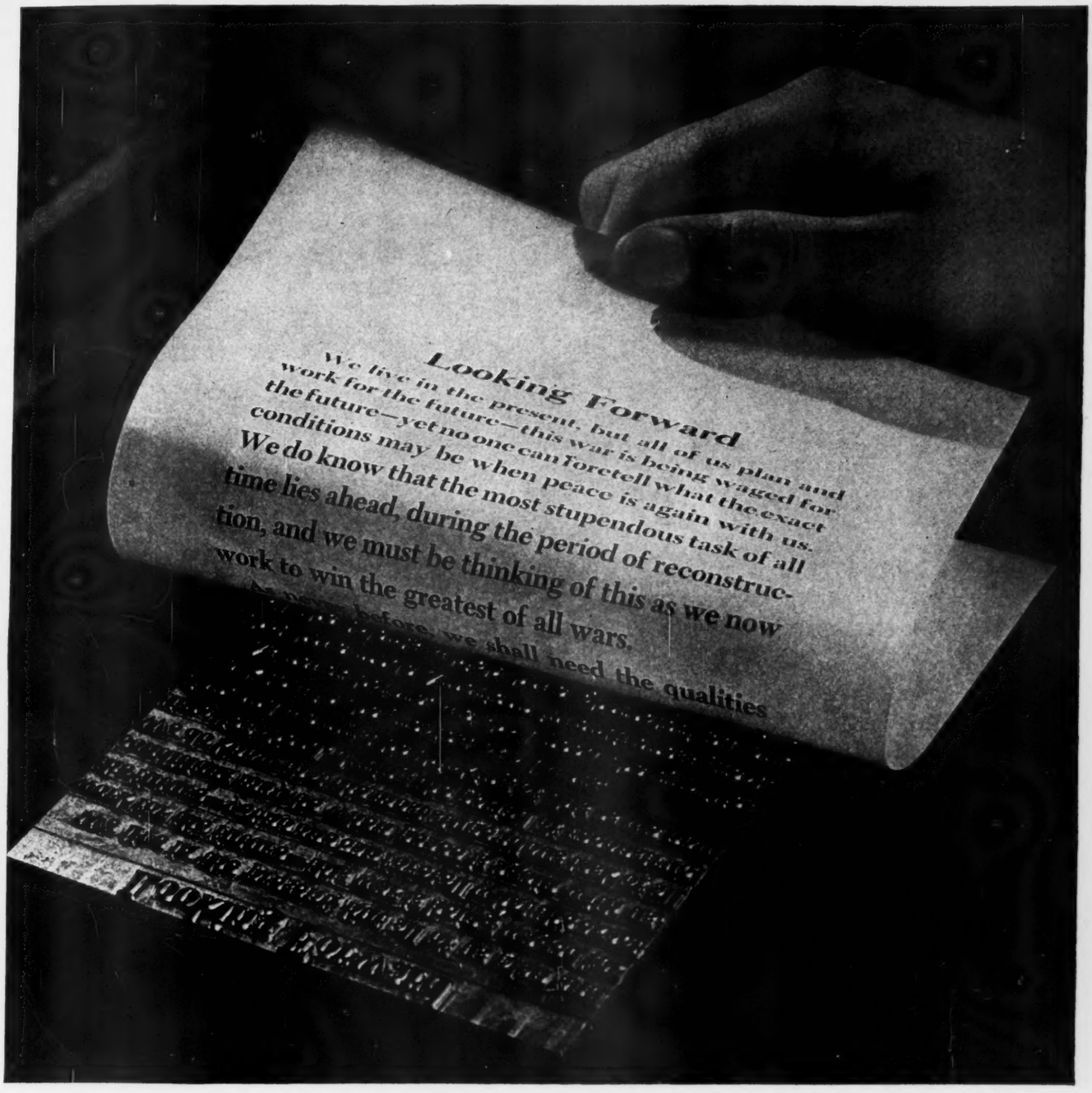
To get across the technique of platemaking, Mr. Gaspar spent approximately 80 hours in assembling the miniature portable plant with which a 17 x 22 plate can be made. Pointedly, Mr. Gaspar stated that the equipment used in the explanation in no wise could be compared to the equipment used by professional platemakers, nor could the necessary craftsmanship skills be demonstrated. Camera unit consisted of old-fashioned 12 x 12 camera, tilting copy board and photo-flood lamps; other items included wooden trough with slatted bottom rack, makeup table, plate whirler and vacuum ("burning-in") frame. The "darkroom" for developing the negative consisted of a masonite box (painted black), placed on a table and large enough to cover three porcelain trays holding developer, fixing solution and one tray for water. Two holes cut in one side of the "darkroom" enabled him to remove the film from the camera plateholder and develop the negative.

Upper Left—Arms aloft at frequent intervals to stress remarks and with wartime shirttail escaping normal confines, Mr. Gaspar waxes enthusiastic about utility of offset-lith process.

Upper Right—Mr. Gaspar explains photographing of copy and adjusts the tilting copy board and photoflood lamps, after which he removes the focussing glass before inserting the plate-holder.

Lower Left—Several pieces of the portable equipment gotten together from odds and ends. At right is the miniature layout or makeup table with frosty glass top; at left is the plate whirler operated by small motor and vacuum pump; in center area is the vacuum frame suction being furnished by small pump operated by fractional h.p. motor. Two photo-flood lamps illuminate the plate while burning-in.

Lower Right—Rubber sponge such as is used by the Mrs. in her kitchen, explained Mr. Gaspar, is finest thing in the world for pre-coat scrubbing of metal plate and for use on the plate during development of the printing image in place of the usual cotton wad or rag. Here he is shown demonstrating use of the sponge upon plate in the portable developing trough.


Looking Forward
We live in the present, but all of us plan and work for the future—this war is being waged for the future—yet no one can foretell what the exact conditions may be when peace is again with us. We do know that the most stupendous task of all time lies ahead, during the period of reconstruction, and we must be thinking of this as we now work to win the greatest of all wars.

THE *Economy* OF QUALITY

ARMY E NAVY
LINOTYPE

BACK THE ATTACK WITH WAR BONDS!

Every successful transaction embodies a need and a trust. Always—and especially during extraordinary times—an investment should recognize the dependability of the product and the organization behind it.

After nearly sixty years, the economy of quality continues to be attested by users who, enjoying the feeling of security of proved performance, say "We are equipped with Linotypes."

Linotype Granjon and Garamond Bold No. 3

Fig. 1.—View of Taylor streaking device mounted on the former of a Goss press in plant of the Charleston (W. Va.) *Gazette*. In this view, the device is adjustably mounted for position to apply a neat color streak of water-base ink along the left side of page 1.

STREAKING DEVICE *for marking newspapers has no rotatable parts, uses waterbase inks, and can be employed to mark practically any page or pages*

A NOVEL streaking device for identifying certain editions of newspapers, by applying a vivid color streak of water-base ink on either side of the front page, or for identifying certain advertising pages in an edition, has been developed by Auburn Taylor, pressroom superintendent of the Charleston (W.Va.) *Gazette*. Through multiple use of the device, three parallel streaks in varying colors (red, yellow and blue, for instance), can be applied to the margin of a page.

The device has been adopted by the Goss Printing Press Co. Patents are being applied for and it will be redesigned and placed on the market when manufacturing conditions permit.

The novelty of the Taylor streaking device is in its mechanical operation, there being no rotating or moving parts of any kind. The device consists of a container of a size suitable to furnish enough ink to mark 25,000 papers before it is necessary to replenish the container with fresh ink. This quantity would take care of a reasonable run of a streaked edition on medium size newspapers. In the case of metropolitan papers wishing to carry a streak-marked edition, three or four presses and folders are put into operation. Thus the problem of marking the pages of a large edition would be resolved into the simple procedure of supplying a streaking device for each folder.

The Taylor streaking device is adjustable for position on the press and, as has been stated above, consists of a container carrying a cap at the top. At the lower end of the container is the bevelled applying nozzle with a slot-like aperture which presses against the paper web supported by the press former. A shut-off valve is located at the bottom of the container. The valve is operated by a keyed rod extending vertically from the valve to the top of the container. The valve functions to shut off the flow of ink when the container is to be removed from or replaced upon the press and is not used to regulate the flow of ink.

The flow of ink, or its application to the paper web, is entirely by absorption. The amount of ink in the container does not seem to have any appreciable effect on the density of color in the streak applied to the paper web.

At either side of the slot-like aperture in the nozzle is a spreading surface, the width of which determines the width of the streak to be applied to the paper web.

As it will be supplied by the Goss Company, the streaking device is adjustably applied to the former carriage, so that a streak can be applied to either the inside or outside edges of a newspaper, and the inside or outside edges of a section. It can be applied to other locations of a press provided the web to be marked is supported as it is in the case of the former itself.

The water-base inks utilized in this particular streaking device are readily absorbable into the paper stock. All colors are obtainable in this type of ink.

Mr. Taylor, the inventor, states that the streaking device container can be readily cleaned free of all ink upon completion of a run by removing the device from the press. The water ink remaining in the container is poured into the original can or receptacle in which the ink was shipped. The container is held under a water faucet and rinsed out. The metallic parts of the attachment are non-ferrous to prevent rusting.

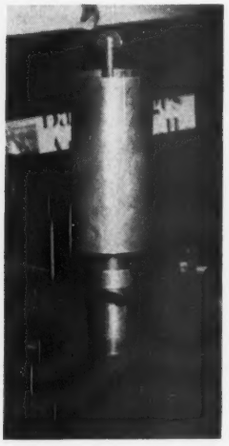
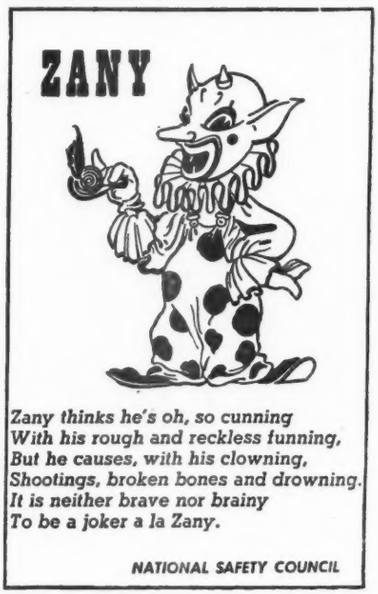


Fig. 2. — The Taylor newspaper edition streaking gun rests on a bracket on the press frame when not in use. Water-base inks are utilized in this device for marking newspapers. It consists primarily of a container, at the lower end of which is a bevelled and slotted nozzle. At either side of the slot-like aperture is a spreader surface. The width of these spreading surfaces determines the width of the color streak. Application of the water-base ink is entirely by absorption. The keyed rod at the top of the container is turned to operate a shut-off valve at the bottom of the container, and is not used to regulate the flow of ink. The valve is turned when the streaking device is removed from or returned to the press.

MEET THE AXEES
The Gremlins of Accidents



Zany thinks he's oh, so cunning
With his rough and reckless funning,
But he causes, with his clowning,
Shootings, broken bones and drowning.
It is neither brave nor brainy
To be a joker a la Zany.

NATIONAL SAFETY COUNCIL

A GRAPHIC POINT ABOUT POSTWAR DEVELOPMENTS

For 164 years Huber has given continuous, reliable service to the graphic arts. Old? Yes, in point of years—but always on its toes when dealing with problems of the day. Just as it will be 'way out in front when it comes to dealing with postwar printing perplexities and developments. It's good business to rely on a supplier who controls every phase of manufacture even to the production of raw materials . . . for your printing inks—LETTERPRESS or OFFSET for the PUBLICATION, CONTAINER, BAG, WRAPPER and COMMERCIAL fields . . . or for other grades of inks. It pays to keep ahead with Huber.

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WPB Notes

CPRB Gets Final Pulp and Paper Report

ACCORDING to the final report of the Combined Pulp and Paper Committee submitted on February 20 to the Combined Production and Resources Board and the Combined Raw Materials Board in Washington, D. C., the primary cause for the deficiency in supply continues to be the lack of sufficient woods labor for cutting pulpwood. The indicated combined supply figure for 1944 of 20,956,000 cords compares with a consumption of 24,795,000 cords in 1941, 24,979,000 cords in 1942 and 23,619,000 cords in 1943. During the last year, this necessitated heavy withdrawals from inventories, which cannot be continued to the same degree in 1944.

In terms of pulpwood requirements, newsprint is of outstanding importance, accounting for about one-fifth of the total combined requirements of wood for all pulp and paper products. Shipping containers and materials for wrapping and packaging (of which a large percentage is used for munitions and other military supplies) account for a large part of the remainder, but pulpwood is used in the manufacture of all kinds of paper and paper products.

The combined 1944 supply estimate, of 20,956,000 cords, which includes further available inventories, is made up as follows by country of origin:

Canada	8,660,000 cords
Newfoundland ...	444,000 cords
United States.....	11,852,000 cords

Current measures taken to increase pulpwood supply, significant as they have been, are not yet sufficient to bring this supply in balance with the combined requirements estimate of 23,597,000 cords. Either additional pulpwood must be produced, and that means additional manpower must be provided, or the estimate of 1944 requirements for pulp, paper and paper products will not be met.

Effective Paper Salvage

DURING the last six months of 1943 the armed services and Government agencies salvaged more than 74,000 tons of wastepaper and obsolete records and printed matter, at a cash recovery to the Government of almost $1,200,000, the Bureau of the Budget and the War Production Board reported in a joint statement.

In addition to the material sold by the Government to wastepaper dealers, an unestimated amount was donated to local public institutions or municipal salvage committees, when small quantities did not warrant sale or were in isolated locations. Still greater results can be expected during the first six months of 1944, the Bureau of the Budget reported.

The War Production Board—which has spearheaded the national wastepaper collection drive—terms this our No. 1 salvage problem, now more urgent than any other, with kraft paper the most critical because of the armed services, expanded use of paper packaging devices.

Revised Essential Activities List

A REVISED list of 35 essential activities was released on February 25 by the War Manpower Commission. In the list are all changes up to and including January 15. The list serves as a general guide upon which manpower programs for allocating labor to the different needs are based. Primarily, it is designed for use of the U. S. Employment Service and the Selective Service System.

The employment stabilization programs of WMC set forth the conditions under which workers may transfer from job to job, the conditions varying in accordance with whether or not the worker has been or is currently employed in an essential activity. The list is used by USES offices in determining the essentiality of the worker's employment. Selective Service Boards use the list in reviewing requests for occupational deferment.

As stated above, the revised list contains 35 essential activities. However, *Printing Equipment Engineer* is publishing only those activities which bear directly upon the Graphic Arts Industries. These are as follows:

12. Smelting, Refining and Rolling of Metal: Scrap Salvage.—Primary and secondary smelting, and refining, alloying, rolling, and drawing of iron, steel, copper, lead, zinc, magnesium, aluminum, brass, bronze, nickel, tin, cadmium, ferro-alloys, and any other metals used in the production of war materials; and scrap salvage.

27. Production of Pulp, Paper and Materials for Packing and Shipping Products: (a) Production of the following pulp, paper, paperboard, and converted products.—Pulp (made from pulpwood and other substances); the following types of paper stock and paper board: Absorbent for impregnation, asphalt laminating, blueprint, box board, butcher papers (untreated and treated), cable and electrical insulation, carbonizing, chart and map (Government), condenser tissue, container board, drafting, filter, fruit and vegetable wrapping tissue, gasket, glassine, grease-proof, gumming, mandrel winding stock, pattern tissue, photographic and other sensitized, rope and jute, safety base stock, sanitary (sanitary napkin stock, towelling stock, napkin stock, toilet tissue stock, hospital wadding stock), shipping sacks stock, tabulating card stock, tracing, twisting and spinning, vegetable parchment, waxing, wet machine board, wrapping (machine finished and machine glazed); the following converted products from paper and paperboard: Ammunition and shell cases, carbon, envelopes used for shipping and preserving essential products, fiber drums, gummed paper tape, hospital wadding, laminated waterproof and heavy crepe, liquid tight containers and closures, mandrel wound, mesh cloth and fabrics, napkins, nested paper cups, nested paper food containers (excluding paper plates), paperboard boxes and shipping containers, sanitary napkins, shipping sacks, toilet tissue, towels, twine, waxed, waxed laminated and resin impregnated papers for food, munitions, and industrial wrapping.

(b) Production of Other Materials for Shipping and Preserving Essential Products.—Bagging, jute, meat; bags, textile (except laundry bags); barrels, metal; baskets (Climax, fruit, vegetable); box shooks; boxes (metal,

(*Continued on Page 45*)

Joe Bloe and Associates Will Start Foremen Thinking On Their Own

HARVARD UNIVERSITY
Graduate School of Business Administration
George F. Baker Foundation

Franklin Folts,
Professor of Industrial Management.

Soldiers Field,
Boston, Mass.,
November 29, 1943

W. W. Warfel,
22 East Banks St.,
Chicago 10, Ill.

Dear Mr. Warfel:

I am glad you are publishing the experiences of "Joe Bloe".

As you have so frequently pointed out, the foreman of today is hard pressed to do the job that is expected of him. All too frequently our efforts to give him help have taken the form of preaching. Few of us like to be preached at and foremen have come to look upon this process of pouring in wisdom with skepticism and sometimes a considerable amount of scorn. I believe that Joe Bloe and his associates will start the reader to thinking on his own, and that is about the most useful trait we can engender among foremen and supervisors today.

We will read Joe's experiences because they are amusing and we will all benefit from them.

Best wishes to you in your endeavor to help the hardest working industrial group I know.

Sincerely yours,

FRANK FOLTS

Printing Patents . . .

Covering patents issued January 28, February 8, February 15, February 22

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,342,130. PLASTIC BINDING SEALING MACHINE for bindings of the type shown in patent 1,970,285 to Douvry. In the construction of the Douvry patent, the ends of the finger lie on the inside of the backbone and end pages are said often to work in between the fixed fingers and the backbone near top and bottom of page and become disengaged from rings. The present invention overcomes this trouble by cementing the ends of the fingers either to the backbone, in the case of the Douvry patent, or to the overlapped portion of the fingers in the case of other types of plastic binding. A solvent is applied to overlapping portions of binder after assembly and solvent is drawn, by capillary attraction, between the overlapping portions. Invented by Charles Edward Emmer, Chicago, Illinois. Assigned to General Binding Corporation, Chicago, Ill. Application January 2, 1940. 4 claims.

Composing Room Equipment:

REISSUE 22,443 of 2,307,071. TYPOGRAPHICAL COMPOSING MACHINE such as a "Linotype" machine having a matrix magazine movable in different directions into and out of operative position. Improvement lies in the provision of a pneumatically operated magazine shifting arrangement employing, as the operating medium, compressed air, the shifting device being operable independently of the machine drive. Mechanism includes a cylinder and piston device connected between the magazine shift frame and the fixed machine frame, with provision for supplying air at both ends of the cylinder so that air pressure can be used to lower, as well as raise the magazines. The weight of the magazine is counterbalanced so that the same air pressure can be used to move them in both directions, and the speed of both operations can be made the same. A locking mechanism for maintaining the selected magazine in its operative position is operated by air pressure. A special control unit at the front of the machine within easy reach of the operator presents a single handle by which the magazines and automatic locking device are conjointly operated. Invented by James C. Plastaras, Laurelton, N. Y. Assigned to Mergenthaler Linotype Company, Brooklyn, N. Y. Application for reissue April 24, 1943. 61 claims.

2,340,342. TYPOGRAPHICAL CASTING MACHINE such as a Linotype machine with an improved metal pot and metal injecting mechanism, as well as improved automatic safety means to prevent casting if machine does not function properly during casting cycle. A main feature is the rapid introduction of metal into the mold under uniform high pressure with a minimum volume of air to be exhausted from mold. Metal injecting mechanism is adapted to be operated in stages, with a pause between stages, for introducing metal in such a manner that only the volume of air occupying the mold cavity needs to be displaced by incoming metal. Metal pot is mounted to move horizontally into and out of casting relation to the mold, and different stages of operation of the pump plunger take place in timed relation to movements of the metal pot. Invented by James C. Plastaras, Laurelton, N. Y. Assigned to Mergenthaler Linotype Company, Brooklyn, N. Y. Application August 27, 1941. 72 claims.

DESIGN 137,212. ORNAMENTAL DESIGN FOR A FONT OF TYPE of upper and lower case characters of large size—apparently 36 pt. or larger, to be effective. Each character is divided by narrow white lines vertically, stencil-fashion, to leave relatively broad columns of various shapes defining the character. These columns actually comprise very fine lines of print set solid so as to give the character a gray tone. Each column of each character contains one or more sentences (or witty quotations) preceded by a star as big as a capital letter in the fine print. Invented by Antonio C. Jimenez, Washington, D. C. Unassigned. Application December 19, 1941.

Feeding, Folding, Delivery:

2,341,182. STEP-BY-STEP OPERATING MECHANISM for use in a machine winding paper, cloth, metal strip or for driving two or more rheostats in passing a web of cloth back and forth through a dye vat. Device comprises a crank, a rotatable gear, a rack arranged for combined reciprocatory and transverse movement in the plane of the gear. The rack has a detent adapted to engage the gear and is provided with a track arranged in the form of an inverted U, adapted to be engaged by the crank during each rotation of crank for cuasing rack to engage gear and rotate it through a predetermined angle in a given direction in synchronism with crank rotation. Invented by Jesse E. Jones, Wauwatosa, Wis. Assigned to Cutler-Hammer, Inc., Milwaukee, Wis. Application October 17, 1941. 7 claims.

2,341,503. MECHANISM FOR CUTTING SHEETS OR WEBS of material by a pinch-cutting action between two movable members, one member acting as a support for the sheet at the line to be cut and the other member carrying a knife. The cutting blade is transversely flexible in the direction of applied cutting force and is so mounted and so preloaded in a cutter holder that the blade will deflect in the direction of cutting and will conform to the platen or support surface throughout. The preloading means assures that pressure is applied continuously to the back of the blade in a stepless manner throughout the length of the blade. Very thin sheets, such as cellophane, may be cut with uniform and complete severance of the material throughout the length of the cutting blade. Invented by Leon E. La Bombard, Nashua, N. H., Assigned to The International Paper Box Machine Company, Nashua, N. H. Application August 20, 1942. 17 claims.

2,341,521. VACUUM OPERATED SUCTION HANDLING DEVICES for sheets of paper, cardboard or thin metal. The power of the device may be increased without increasing the size of the piston. This is accomplished by so constructing the device that atmospheric pressure controlled by the sheet is applied to one side of the piston upon the lifting movement thereof to thereby increase the power of the piston. Invented by Leonard Baker, Hillsdale, N. J., and Leo C. Williams, Pearl River, N. Y. Assigned to Dexter Folder Company, Pearl River, N. Y. Application March 4, 1941. 23 claims.

2,342,203. DEVICE FOR FEEDING WEB MATERIAL to certain processing machines, such as waxing or coating machines, and rotogravure printing presses. The machine may continue its operations without moving the web itself, while machine is being cleaned or while evenly spreading the wax, coating or ink; or, in connection with a rotogravure printing press, while corrections are being made on the cylinder. The tension of the web may also be controlled. Uniform belt feed is maintained regardless of the diameter of the cylinder which applies material to the

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web. Invented by John B. Kohler, Chicago, Ill. Unassigned. Application April 17, 1941. 3 claims.

2,342,471. HANDLING MECHANISM for feeding newspaper stacks to bundle typing machines. The stacks, upon being assembled, are fed directly to the working platform or table of the binding machine for immediate tying up into bundles. If the stacks arrive at the typing machine and cannot be tied immediately, the stacks will not be disarranged and newspapers will not be caused to spill on the floor. A plurality of spaced rolls are used on carrying chains and the rolls are independently rotatable in relation to the carrying chains whereby when the stacks are held from progressive movement, the rolls may continue to advance with the carrying chains without effect on the stacks, accordingly eliminating the necessity of stopping feeding mechanism. Invented by Howard M. Jampol, New York, N. Y. Unassigned. Application January 24, 1940. 2 claims.

Miscellaneous:

2,339,891. APPARATUS FOR FLOCK PRINTING in which the adhesive is applied to the fabric prior to the application of the flock. Adhesive should contain a solvent and a pigment and about 5% water. An example is: 9½ quarts heavy commercial flock varnish; 2½ quarts lacquer emulsion; 2 pounds Mephisto Red Lake and 50 c.c. 6% Cobalt drier. The adhesive is applied to fabric running over the impression cylinder by means of a print roll carrying an intaglio design. Fabric only lightly contacts roll and by continuous cleaning processes an excessive deposit of adhesive is avoided. A doctor blade cooperating with the engraved print roll keeps it supplied with adhesive. Invented by Edmund C. Tarnusser, North Adams, Mass. Assigned by mesne assignments to Beacon Industrial Corporation, Fall River, Mass. Application February 26, 1941. 3 claims.

2,340,850. APPARATUS FOR APPLYING FLOCK to materials to obtain a raised plush or velvet effect. To obtain an even distribution of the flock, a support material is used such as rubber, oilcloth or duck of such properties as to have its own frequency of vibration when subjected to tension. By imparting periodic impulses to the vibratory material, the frequency of vibration can be made much greater than produced by former methods. The action is like that of a stretched drum skin and by transmitting high frequency to such material covered with flock, the superimposed flock will be projected into the air vertically in the form of a shower, thereafter returning in an evenly distributed layer. An arrangement of polygonal bars are used for imparting periodic impulses. Invented by Charlotte Wolfson and Bella Treistman, New York, N. Y. Unassigned. Application July 2, 1943. 7 claims.

2,342,252. MILL FOR GRINDING AND/OR MIXING viscous and/or sticky materials such as colored printing inks, etc. A stationary milling member is used in connection with a rotary milling member. The rotary member is cone shaped and is mounted in the bottom of a housing and is geared for application of power. The stationary member fits over the rotary member and may be removed for insertion of material to be mixed. Pressure between the two members may be manually adjusted by handles which extend from top of housing. Invented by Leslie W. Claybourn and Edward A. Butler, Buffalo, N. Y. Assigned to The Turbuletics Corporation, Buffalo, N. Y. Application October 8, 1940. 3 claims.

Plate Making:

2340,485. PROCESS OF PRODUCING SCREEN STENCILS used for making ink and paint impressions of designs, depositing adhesive for flock printing or applying dyes to form a design. Base screen is of nickel on which a layer of copper is deposited by electroplating. Photoengraver's glue or light sensitive shellac is next applied on which a design is imprinted. The copper is etched until it is undercut beneath the marginal areas of a design. A thick layer of nickel is electroplated on the areas exposed by the etching step, thereby providing a continuous metal layer for the surface delimited by the design areas. Glue is removed and the copper left unprotected by removal of glue is etched away. The entire structure is then etched until ink-feeding passages have been opened from the design areas of the heavy layer of nickel through the thin layer of nickel to rear face of screen. Invented by Edward O. Norris, Westport, Conn. Assigned to Edward O. Norris, Inc., New York, N. Y. Application June 5, 1941. 11 claims.

2,340,525. METAL PUMP used in stereotype plate casting machines. This pump discharges liquid to a mold or other receptacle having a by-pass valve in the pump cylinder and mechanism for opening the valve when the mold or receptacle is full or when a predetermined quantity of liquid has been delivered to permit escape of excess liquid. The pump lever may be manually or power operated. If manually operated, a manual control is provided for closing the valve. If controlled by power, it is preferable that the same power control be used to close the valve. Invented by William Gerrard, Timperley, and Walter Harris, Altrincham, England. Assigned to Linotype and Machinery Limited, London, England. Application November 30, 1940. 18 claims.

2,341,115. METHOD OF PRODUCING OIL-INSOLUBLE POTENTIALLY REACTIVE SYNTHETIC RESINS capable of being cured to a state of thermorigidity and infusibility by means of hardening agents, and used in the manufacturing of molding compositions, in whole or part for making printing plates as well as in brake linings, electrical insulation, refrigerator strips, etc. Method comprises heating a mixture consisting of the shell liquid of a nut of the cashew family and a fusible phenolic resin that can react with hardening agents containing reactive methylene groups, the phenolic resin being from a group consisting of carbolic acid-formaldehyde or phenol-furfural condensation products, gum accroides and dragon's blood. Mixture is heated until a sample withdrawn and cooled is homogenous and grindably hard, after which a hardening agent is incorporated. Modifying agents that may be added include linseed oil, castor oil, zinc oxide, barytes, silica. Esters may be used as catalysts or condensing agents. Invented by Emil E. Novotny, Oak Lane, Pa. Assigned to Durite Plastics, Incorporated, Philadelphia, Pa. Application January 6, 1940. 9 claims.

2,341,611. PRODUCTION OF HIGH POLYMERIC CONDENSATION PRODUCTS useful for masses for reproduction and printing arts, as well as in preparing textile filaments, glass-substitute plates, electrical insulation, adhesive foils, light filters, production of camera parts and casings for rollfilm, spools for film, adhesive layer for composite glass. The superpolymers are made by melting an aromatic polyamino carboxylic acid containing at least two primary amino groups with an aliphatic amino carboxylic acid substance such as aliphatic omego primary monoaminomonocarboxylic acids and amide forming derivatives of these acids. Invented by Max Hagedorn, Dessau, and Ernst Schmits-Hillebrecht, Bitterfeld, Germany. Vested in the Alien Property Custodian. Application April 3, 1940. 4 claims.

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2,341,927. BLADE OILING DEVICE for stereotype plate shaving machines which perform finishing operations on the plates to adapt them to (upon rotary printing press cylinders. Machine comprises a shaving arch for receiving the stereotype plate to be shaved, a cutting blade bar with a blade for shaving the ribs on interior, or rear, face of the plate, and a device for effecting oiling of the cutting blades during each successive revolution of same. Device comprises an oil reservoir, and, supported in its mouth, means for transferring the oil to the blade, consisting of a sheet of wick-like material (e.g., felt or canvas) held between 2 sheets of stiffly resilient material (such as leather) which are themselves held between 2 resilient sheets of an oil-impervious metal (such as thin sheet steel). Invented by Lawrence W. Leonard, Newton, Mass. Unassigned. Application October 5, 1939. 5 claims.

2,342,175. PREPARATION OF LITHOGRAPHIC PLATES for printing, using as collodial coatings the reaction products of polyvinyl alcohol or a suitable derivative thereof. The plates thus treated are said to have a life many times that of albumin coated plates. An example is: Medium viscosity polyvinyl alcohol is dissolved in water to a 3% solution. The solution is agitated and a stream of gaseous chlorine is led through solution. The chlorinated derivative in dry form is a fine, white, granular powder dissolving in water at 80° C. to give a white iridescent solution. Esters and partial esters of the lower fatty acids are used. Invented by William H. Wood, Bedford, Ohio. Assigned to Harris-Seybold-Potter Company, Cleveland, Ohio. Application June 19, 1939. 7 claims.

Printing Inks and Related Chemicals:

2,339,934. NEW AZO PIGMENTS AND DYES prepared by mixing an ice color coupling component and the reaction product of an ice color diazo component with an alkylol or alkoxy-alkylol derivative of guanidine. Mixture may or may not be colored. If a textile is printed or impregnated with this mixture and heated in the presence of an acid, the acid hydrolyzes the stable diazo compound, splitting it into its components. The regenerated diazotized component liberated couples with the ice color component to form an azo pigment or dye. Formic or acetic acid esters of tartaric acid, etc. may be used for the aging process. Starch, gum and similar substances are used in printing paste produced. Invented by Paul P. McClellan, Old Greenwich, and Walter P. Ericks, Cos cob, Conn. Assigned to American Cyanamid Company, New York, N. Y. Original application December 12, 1940. Divided and this application August 30, 1941. 6 claims.

2,339,935. NEW AZO PIGMENTS AND DYES prepared by mixing an ice color coupling component and the reaction product of an ice color diazo component with an alkylol or alkoxyalkylol derivative of biguanide. The process and products of this patent are similar to those of patent 2,339,934 above. Invented by Paul P. McClellan, Old Greenwich, and Walter P. Ericks, Cos Cob, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application August 30, 1941. 6 claims.

2,340,913. METHOD OF PREPARING A PROLAMINE COMPOSITION such as a solution of zein which may be used to coat or impregnate paper or cardboard after it is printed or before; or with solvents to form inks for intaglio printing, screen-stenciling, letter-press, offset, sign making; or applied to paper, plies of wood, or fabric for lamination with heat, etc. Certain resins such as the esters of abietic acid or rosin act as solvents for zein and may react with it at elevated temperatures, the product acquiring a shellac-like toughness and being used as a varnish. Dibutyl tartrate, tricresyl phosphate and other plasticizers may be used. Substances that may be added include bodied castor oil, sulfonated olive oil, pigments (such as titanium dioxide etc.) and others. Method of producing the anhydrous solution of zein includes homogenising commercially dry zein at elevated temperature with solvent having fluidity at that temperature. The solvent having liquid or plastic form is compounded to homogeneity whereby solvent action is exerted on the zein to form a solid solution. Invented by Harry M. Weber, Chicago, Ill. Assigned to American Maize-Products Company, New York, N. Y. Application November 4, 1940. 11 claims.

2,340,946. QUICK-DRYING PRINTING INK adaptable to typographic or intaglio process, which will dry or harden on brief exposure to elevated temperatures, or which can be rapidly set on the surface of paper or textiles at reduced temperatures. The binding agent comprises a polymeric olefinic petroleum hydrocarbon or hydrocarbons. An example is: Polymerized isobutylene (a rubbery solid of molecular weight above 40,000) is dissolved in a petroleum fraction boiling between 300° F. and 400° F. The solution is thinned with a petroleum fraction boiling from 350° F. to 450° F. Carbon black is incorporated by grinding. The composition is viscous and may be thinned to any consistency. A thin film of the ink on paper dries in less than a minute at 266° F. Invented by Carleton Ellis, Montclair, N. J. Assigned by mesne assignments to Jasco, Incorporated, a corporation of Louisiana. Application July 16, 1940. 5 claims.

2,341,413. ALBUMINOUS COATING FAST TO WATER AND RUBBING, suitable for pasteboard, artificial leather, tightly woven fabrics, etc. which may contain pigments, dyestuffs, resins, etc. The material may be treated with the albuminous coating (albumin or casein) by a brushing or dyeing machine, or by spraying apparatus. Treatment with a compound such as cyclohexylethylene and related compounds achieves the fastness of the casein coating. Invented by Walter Pense and Herbert Bestian, Frankfort-on-the-Main, Germany. Vested in the Alien Property Custodian. Application October 12, 1940. 7 claims.

2,341,846. SURFACE ACTIVE AGENTS USEFUL AS WETTING AGENTS, detergents, surface tension reducing agents, emulsifying and demulsifying agents, dispersing agents and dye assistants. They are prepared by reacting an ester of a suitable unsaturated aliphatic carboxylic acid and a polyhydric alcohol, preferably with a catalyst. An example is: Di-n-octyl maleate hexaethylene glycol monoether is prepared from hexaethylene glycol, di-n-octyl maleate, and metallic sodium as a catalyst. Products are useful in preparing pigment and dye-emulsions and pastes used for printing in the printing of paper, textiles and other objects. They may also be used as colloidizing agents in the printing, padding and dyeing of textile fibers. Invented by Edmund R. Meincke, Stamford, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application June 24, 1941. 6 claims.

2,342,191. DYEING AND PRINTING PASTE useful in dyeing cellulose ether and ester material shades of blue of good fastness to light. The essential dyeing and printing ingredient is obtained by reprecipitating 45 to 55 parts of 1-amino-4-(p-hydroxyphenyl)-aminoanthraquinone with 7 to 12 parts of 1- methylamino-4-anilidoanthraquinone, and adding 35 to 45 parts of 1-(beta-hydroxyethyl) - amino - 4 - anilidoanthraquinone. Invented by Paul Grossmann, Binningen, Switzerland. Assigned to Society of Chemical Industry in Basle, Basel, Switzerland. Application May 25, 1940. 17 claims.

2,342,429. PREPARATION OF AN IRON BLUE PIGMENT highly resistant to the action of alkaline compounds, useful in the coating and printing fields. An intimate mixture is made of ferric ferrocyanide particles and nickel ferrocyanide, the nickel ferrocyanide comprising from about 2 to 20% of the mixture. The pigment has deposited thereon small amounts but at least 0.1% nickel in the form of a basic water-insoluble compound. The pigment particles are coated with 0.5 to 10% of a non-volatile water-insoluble film-forming liquid. The nickel may be in the form of nickel sulfate. Invented by Irving Shack, Brooklyn, N. Y., and Edwin A. Wilson, Rutherford, N. J. Assigned to Interchemical Corporation, New York, N. Y. Application February 23, 1942. 8 claims.

2,342,520. LUSTER-IMPARTING SURFACE COMPOSITION useful in surface treating wood, leather, paper, textiles, and millboard, and in the manufacture of dyeing-and printing-pastes. Halogen-hydracid salts of organiccompounds containing at least one higher molecular aliphatic radical and at least one amino group are used as wax-substitutes in the composition. These salts have excellent oil-binding power and do not crystallize. Stearic acid may be used as a starting material. An example is a coating composition made of the hydrochloric salt of an aliphatic amine substituted only by a montanyl radical, ozocerite, paraffin, turpentine oil and benzine. Invented by Kurt Stickdorn, Dessau-Rosslau, Germany. Vested in the Alien Property Custodian. Application October 20, 1939. 5 claims.

Printing Presses and Equipment:

2,339,899. SPRAY APPARATUS to be used with dry powder to prevent offset in printing. A pair of improved nozzles may be adjusted to spray the powder in any desired direction and have means to catch the drip powder. A removable screen prevents lumps of powder from being ejected by the spray. The refill cap is adapted to permit operator to inspect and determine the amount of powder on hand. Invented by William Wilson, New York, N. Y. Assigned one-half to Joseph M. Roschko. Application December 9, 1941. 11 claims.

2,340,319. METHOD FOR INCREASING EFFICIENCY OF INK-DISTRIBUTING SYSTEM of offset lithographic and analogous printing presses. By increasing the temperature of certain of the ink distributing rollers of the press which are in such a position that they are cooler than other rollers of the system, ink is prevented from building or piling up on the usually cooler rollers and thereby destroying the even character of the ink film transmitted through the ink distributing system to the printing plate surface. Water is heated, causing warm moist air from the water to ascend into contact with the cooler rollers, whereby the ink is heated and softened so that it will travel freely in a continuous flow through the system. Invented by John G. Goedike, Fort Sam Houston, Texas. Unassigned. Application November 19, 1941, 12 claims.

2,340,979. MULTI-COLOR PRINTING APPARATUS utilizing a pair of rollers between which the article to be printed, such as a hat, lamp shade, paper or fabric in rolled form, is passed. One of the rollers bears a design to be printed in a plurality of colors. A reservoir tray is mounted on a reciprocating arm which drives the rollers, the tray consisting of a plurality of compartments each of which may contain a different colored printing substance. These compartments match the design on the design carrying roller, so that when the tray contacts the design roller, the different colors will be transferred to the design roller in matched relation, and upon further rotation of the roller, the design in colors is applied to the object. Invented by Frank Ostolaza, Florissant, and John F. Doskocil, Jr., St. Louis, Mo. Assigned to Mexican American Hat Company, St. Louis, Mo. Application September 12, 1941. 4 claims.

2,341,202. ROTARY PRINTING PRESS in which the design cylinder of an intaglio printing unit may be independently adjusted both rotatively with respect to its driving mechanism and in an endwise direction while the press is running or is at rest so that form cylinder may be brought into both longitudinal and lateral registry easily and accurately. Endwise and rotative adjusting mechanism manually operable, is located at the gear side of the press. A coupling between the form cylinder shaft and upper sleeve shaft is provided which permits ready removal and replacement of the form cylinder without in any way disturbing the drive or the adjusting devices. Invented by Howard M. Barber, Pawcatuck, Conn. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application February 28, 1941. 10 claims.

2,341,636. APPARATUS FOR VARYING EFFECTIVE DIAMETER OF A WEB PRESSURE FEED ROLL, to a slight degree, to obtain the greatest accuracy in the surface speed of the web controlled by the feed roll. The roll has an elastic metal shell and the pressure may be changed within this shell for causing the expansion or contraction of the shell and thus increase or diminish the effective diameter of the feed roll. The elastic metal shall is filled with a non-compressible air-free plastic material in the liquid state which may be displaced by one or more longitudinally disposed plungers projecting into plastic material and adjustable for displacing it to effect expansion or contraction. Invented by Hans J. Luehrs, Westerly, R. I. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application January 13, 1942. 10 claims.

2,341,690. PRINTING MACHINE of the flat block type. A heating equipment is provided to heat the ink in the fountain to a proper temperature within a narrow predetermined range and maintain the ink within such range until ink is supplied by the form to the paper. Hot liquid is circulated through the flat black, the transfer roll and around the ink reservoir. Liquid flow rate is rapid enough to maintain heat balance and flow rate is controlled by the size of the outlet orifices which are so dimensioned that the heat dissipation is balanced by the heat supplied by the liquid. Air may be removed from fluid to prevent air binding. Water may be used as the circulating fluid. Invented by Lynn B. Case, New Brunswick, N. J. Assigned to John Waldron Corporation, New Brunswick, N. J. Application February 8, 1941. 2 claims.

2,341,929. LITHOGRAPHIC ADAPTER FOR A LETTERPRESS for converting the latter into a lithographing machine at less expense than the production of such a machine as now known. Invention includes a roller to which a lithographic plate may be attached for use as a lithographing machine, and also to which an ordinary inking pad may be applied when machine is used as a letterpress. Roller is mounted for to-and-fro movement between inking and moistening rollers and the printing block, and is adapted to contact the block during its movement away from the rolls, and to be elevated to clear the block throughout its movement towards the rolls. Invented by William E. Lewis, Portland, Oreg. Unassigned. Application August 28, 1941. 11 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

Silver Cup Presented For Best Printed Essay

For the fourth consecutive year, a silver cup was awarded to a high school student for the best printed essay in a national contest. The prize was won by William E. Kreuz, a student in Timken Vocational School, Canton, Ohio, now serving in the Armed Forces of the United States. Last year Wendell H. Humes of Timken Vocational was recipient of the cup.

The award of the silver cup for the essay presented in best printed form goes with the award of cash prizes for essays judged best for content. The essay contest preceded that of the printed essay competition and is now in its eighth year. The prizes and the cup are the gift of the International Printing Ink Division of Interchemical Corporation. While the annual awards amount to $1000 given to the winners to be used as they will, the silver cup is received by the successful student and becomes a trophy for his school.

The speaker at the exercises at Timken Vocational School in Canton, was J. Henry Holloway, Principal of the New York School of Printing, who had been requested by IPI and the National Graphic Arts Education Association to represent them and make the presentation in their behalf. William E. Kreuz, who was necessarily absent, was represented by Hayden Daniels.

ZINC AND COPPER *for photo-engraving —*

Present outlook for increased supply contingent upon war developments

By MEIRIC K. DUTTON*

**Chief, Distribution Section, Printing and Publishing Division, WPB, Abstract of address delivered before Southeastern Photo-Engravers' Association, January 19, 1944, at Hotel Atlanta-Biltmore, Atlanta, Ga.*

EVERYONE here knows and is thankful for the fact that the Printing and Publishing Industry weathered the first two years of the war with very little discomfort in comparison with our more unfortunate industrial brothers in other lines of business. Although you photo-engravers suffered a cut in your use of copper and zinc for photo-engravings, you have been able to produce about 80% of the number of square inches of photo-engravings which you produced in the base period by means of using 18 gauge metal and by other economies which you have been able to effect.

I know that it has not been easy to work this lighter gauge metal and that you have resorted to its use only as a means of adding in the war effort and of supplying the printing industry with its absolute requirements. Naturally, you are looking to a relaxation of Order M-339 at the earliest possible moment.

In this connection, I want to assure you that only necessary limitations have been placed on your use of materials. Also, I want to bring you the sober realization that the war is not over. We have not yet begun to re-occupy Western Europe. On the results of that campaign, the entire future course of the war rests. It is improbable that any very extensive relaxation in the production of civilian products can be made until after this re-occupation has been begun with attendant success and until the resultant pattern of the war can be seen more clearly.

You will have seen countless newspaper articles indicating ample supplies, if not actual surpluses of copper and zinc. I have here a sheaf of such articles, all of which indicate that these metals are in ample supply for all normal purposes. I think it would be a true statement to say that the metals situation today is not nearly as good as it is reported in various

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circles; nor is it as bad as it has been in the recent past.

You will realize, however, that many factors must enter into the war production picture before any extensive relaxation can be permitted. For example, our present high production figures of copper and, particularly, of zinc are partially the result of subsidies. As of December 31, 1943, no more subsidies for new submarginal mines are being given. You have heard that marginal producers in other fields such as aluminum have been closed down. It is possible that some of the low-grade copper and zinc mines will be closed before large increases in allotments for civilian produce can be made.

Within the past few weeks, the broad policy of the War Production Board has been considerably clarified concerning expansion of production of civilian goods.

With reference to the continuance of restrictions on new construction and facilities, Chairman Donald M. Nelson of the War Production Board announced on January 12, "Construction has been sharply curtailed during the last year. The entire situation (of continuing these restrictions) was given full consideration at today's Board Meeting, and it was unanimously agreed that there must be no modification of the restrictions until we can be certain, from the course of the war that such modifications would not harm the war program."

On January 7, the Office of War Information quoted WPB officials as saying, "Our severely burdened railway and motor transportation systems and our heavy war industries must have first call on replacements and maintenance equipment as they become available." The release continues to point out that WPB cautions against the conclusion that the end to metal famine in War Production will mean ability to swing at once into civilian production.

During the week of January 10th, the War Production Board decided against a general relaxation of a steel conservation order in spite of the fact that steel is more freely available than either copper or zinc. Problems of manpower, transportation and facilities—as well as supplementary requirements such as containers for the proposed new products—were responsible for this decision.

However, it is interesting to note that relief is being granted in certain instances; and it will be worth your time to analyze the relaxations that take place in the next few months. Our own Order L-188, Looseleaf Binders, was relaxed to provide for the allocation of 75% of a person's 1941 steel usage whereas production prior to January 7th had been limited to 30% of a person's 1941 usage of steel. I would like to point out, however, that this did not mean that any more items would be manufactured. What it meant was that steel is now less critical than wood and plastics which had been used in "victory type" binders. What this actually amounted to was a re-substitution program rather than a program of relaxation. Similarly, steel has been permitted for use in baby carriages in order to relieve the pressure on lumber which had been used in these substitute carriages. Also, some relief will be given to industries which suffer great hardship such as those which now face extinction due to the cancellation of war contracts for which they gave up their normal business.

I am sure that everyone here will see the justice of continuing under our present restrictions a little longer than would otherwise seem necessary in order to permit resumption of business by these industries which have been so seriously stricken.

Order M-339 has now been in effect for a period of five months, and the correspondence which I have had concerning it indicates that it is both understandable and understood. The order continues the principal limitations which Orders M-9-c and M-99 previously imposed on these two metals for our industry's use. Order M-99 continues in effect with reference to obsolete plates in the printing industry; and Orders M-9-c and M-11-b continue to control all uses of copper and zinc other than for plate-making.

On November 12, 1943, an amended Order M-339 was issued. The amended order permits the use of zinc at 60 percent, by weight, of a person's 1941 usage; and it continues to restrict a person's use of copper to 60 percent by weight, of his 1940 usage. In the amended order, the liquidation of inventories of both zinc and copper is encouraged through a provision which states that 25 percent of the weight of any copper or zinc finished as 16-gage photo-engravers sheet before

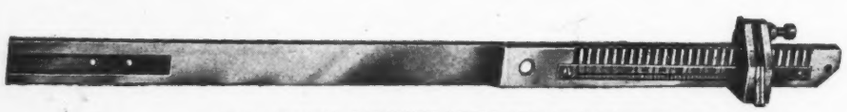
Our Apologies to . . .

We note from a report to the A.N.P.A. Composing Room By-Mail Clinic (Page 13, January Issue Printing Equipment Engineer) that:

"One Executive states that Assembler Slide Brake Facings (D 1459) are replaced with Brass Facings made from old Ludlow Matrices so as to save Assembler Slide from wearing out."

Our apologies to this Executive. We have apparently neglected to inform him that we made a more basic improvement about two years ago: The "STAR" Improved Assembler Slide is HARDENED on the wearing surfaces. Used with another STAR Improvement, namely the **Fibre Brake Facings (D 1459A),** the "STAR" Slide will last indefinitely!

Of course there is another advantage in this Slide already known by hundreds of users. The Clamp is kept rigid by an ingenious but simple improvement, **so that a true measure is held at all times.**



PART No. D1654A OR D3189A ASSEMBLER SLIDE BAR and CLAMP

P. S.—THERE'S ANOTHER LITTLE "STAR" IMPROVEMENT OUT,—A NEW SECOND ELEVATOR STARTING SPRING, (B23BA). IT SHOULD OUTLAST THREE OF THE OLD TYPE.

FACTORY — MAIN OFFICE
Weatherly, Pa.

LINOTYPE PARTS COMPANY

314 WEST 10th STREET
Kansas City

AGENCIES:
CHICAGO DENVER
MINNEAPOLIS

Precision
TRADE ★ MARK
Parts

ACE BELTS
formula for
Efficiency, Long Life

July 1, 1943 which a photo-engraver uses after that date, shall not be counted in computing his allowable usage of that metal under the order. Also, in order to insure use of all inventories prior to the purchase of new metal, a new inventory provision requires that the weight of all gages and sizes of each metal must be combined in determining a person's allowable inventory.

Copper and zinc used in printing plates ordered by any department or agency of the United States Government are exempted from the quota established by the order. Also exempted are copper and zinc used in plates which are made exclusively for printed matter which is ordered directly from the producer of the printed matter by any department or agency of the United States Government but only when the person who orders the plates is both the person in whose name the governmental order is placed and the person who actually produces the printed matter. The order clearly states that this exemption shall not apply when the order for the printed matter is placed by any person other than the one who is actually to produce the printed matter, even though he may have a Government contract which calls for the delivery of the printed matter to a department or agency of the United States Government. The amended order also establishes a specific definition of the very limited types of official newspapers for military and naval establishments for which plate-making metals are exempted. Purchase orders for plates which are properly exempted under this provision must carry the certification called for in the order; and plate-makers must report quarterly to WPB the amount of each kind of metal used for such ex-quota work.

The fact that allocations, preference ratings and inventories do not permit a person's use of these metals in excess of his quota under the order is explained in the order.

You know that it is the policy of WPB to decentralize operations and to eliminate paper work as far as possible. In carrying out this policy the Printing and Publishing Division has processed its first quarter, 1944, applications on CMP-4B for the entire year in the case of the controlled materials need for printing plates. In processing these cases in the Distribution Section, I have granted 100% of a person's allowable usage of these materials under the terms of Order M-339 after taking a person's inventory situation into account. Interim applications which may be necessitated by approved ex-quota usage of these materials under the terms of paragraph (e) of the order will then be made to the nearest Field Office of WPB. This will result in a substantial decrease in the number of applications required of photo-engravers and electrotypers.

It is our understanding that, at a meeting held January 14 of this year, the Zinc and Copper Grinders Association has decided to return to the processing of 16 ga. photo-engravers' sheet copper. Since July 6, 1943, these grinders have limited their production of copper photoengraving sheet to 18 ga. thickness. It should be thoroughly understood that this decision on the part of the Grinders Association cannot, in itself, be considered by the War Production Board as any justification for relaxation of the provisions of the order. Under the present terms of the orders, your use of 16 ga. metal which will have been finished as 16 ga. photo-engravers' sheet after July 1, 1943, will simply mean that you will lose a considerable amount of the square inch production which you would be able to obtain through the use of 18 ga. metal.

In closing, I want to urge upon every one of you a program of complete conservation. Don't look for excuses to gain an advantage by indulging "sharp" practices. It is no longer considered smart to wait for orders which impose restrictions.

Each of you must remember that his savings will be multiplied thousands of times throughout the industry; and that it is through such multiplication of small savings that this war will be won, that this industry will be preserved in its best health, and that each of you will gain the respect of your industry and your community.

AUTHORIZED REPRESENTATIVES

CHICAGO:
Chemco Photoproducts Co.
NEW ORLEANS:
Chemco Photoproducts Co.
ST. LOUIS:
Mid-West Photo-Eng. Supply Co.
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CINCINNATI:
G. C. Dom Supply Co.
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Metzger Photo Supply Co.
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16-Gauge Copper NOW AVAILABLE
for immediate delivery in the following sizes:
14"x34" 22"x28"
15"x36" 16"x20"
18"x36" 24"x36"
Available on special order 30"x40"

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The Standard Never Equaled

THE EDES MANUFACTURING CO.
PLYMOUTH, MASS., U.S.A.
EST. 1850

EDES ENGRAVING METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

IS THE END NEAR?

In many plants inaccurate saw trimmers are nearing the end for efficient usefulness. The life of some can be extended by repairing and replacement of worn parts.

Others should be replaced as soon as new machines are obtainable. You can insure the earliest possible delivery on C&G 3-A Saw Trimmers, complete with C&G Positive Work Holder, Any Angle Gauge, Universal Saw Grinding Attachment with Universal Blades, and other exclusive features, by ordering NOW.

A circular giving complete information on the C&G 3-A Saw Trimmer will be sent upon request.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE 2, WISCONSIN

EXECUTIVE ¶s

Leslie J. Griner, mechanical superintendent of the Youngstown (O.) *Vindicator*, has been named mechanical superintendent of the Chicago *Sun*, according to an announcement made on March 8 by Business Manager Clem Randau. He will report to his new assignment on April 10. No other detailed information was available at the time of Mr. Randau's announcement. Mr. Griner has been associated with the Youngstown *Vindicator* for a considerable length of time. He was promoted from stereotype foreman to *Vindicator* mechanical superintendent in 1936. He is a member of the ANPA Mechanical Committee. He has developed into an able mechanical department administrator. He has had building and radio plant construction experience for the *Vindicator*.

Leslie J. Griner becomes Mechanical Superintendent of The Chicago *Sun* early in April.

Thos. F. Gougarty has been elected a director of The Journal-Herald Pub. Co., Dayton, Ohio.

His many friends will be pleased to know that Thomas F. Gougarty, mechanical superintendent of Journal-Herald Publishing Company in Dayton, Ohio, was elected a member of the company's board of directors in January. The company publishes the *Journal* (6 day evening), the *Herald* (6 day morning) and the *Sunday Journal-Herald*. Mr. Gougarty is one of the outstanding newspaper production executives in the country and *Printing Equipment Engineer* is pleased that this recognition has been accorded to him.

According to a bulletin from Lou Cappel of the Cincinnati Craftsmen's Club, President Harvey Glover of the Intl. Association of Printing House Craftsmen, spoke before the February meeting of the club upon the two-part subject of *Craftsmanchip* and *Offset*. Delegations of Craftsmen from the Indianapolis, Dayton and Columbus clubs attended the Cincinnati meeting as a tribute to Mr. Glover.

At a recent meeting of the board of directors of the Monotype Company of Canada, Ltd., General Manager Harry E. Mounstephen was elected president of the company. He has been serving as general manager during the past seven years with headquarters in Toronto. He succeeds John J. Meadth who continues as the company's vice president, the same official position Meadth holds with the Lanston Monotype Machine Co. in Philadelphia. Mr. Mounstephen started in the printing industry as a printer's devil. He traveled extensively and covered territory as far as the Pacific Coast. After completing his apprenticeship, he became a journeyman with the Toronto

Harry E. Mounstephen has been elected president of the Monotype Company of Canada.

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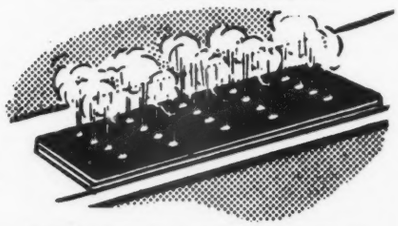
Important where considerable shrinkage is employed



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stays out of trouble!

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Parts Catalog and Instruction Book now available

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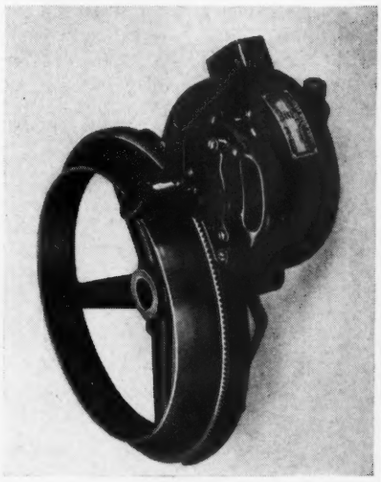

Cushman Motor Division

LINOTYPE PARTS COMPANY

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RIGHT FROM THE WOOD

TODAY dry mats are a tailor-made product manufactured to meet the varying requirements of individual newspapers. With a thorough knowledge of your plant requirements, we can furnish a mat that will comply in every detail. Your continued cooperation will prove to our mutual advantage.

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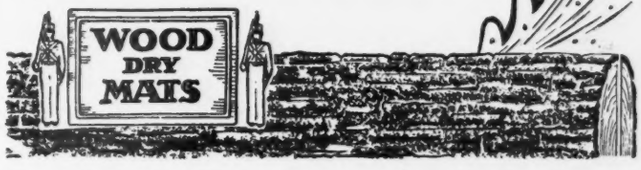
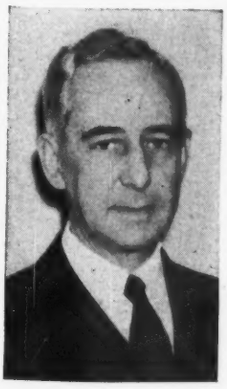


Typographical Union. He became familiar with the weekly and daily newspaper fields in British Columbia. Later, he returned to Toronto as Province of Ontario sales representative for the Monotype Company of Canada. In 1924 he became Southern California repretentative for the Monotype Company of California. After a time, he returned to Canada and was made general manager of a daily newspaper, job and publication plant. A few years later he rejoined Canadian Monotype as representative. Next he was appointed assistant to the president, then general manager, and now president of the Monotype Company of Canada.

Interchemical Corporation has announced important personnel changes. At a recent meeting of the Board of Directors, Bromwell Ault, former president of the International Printing Ink Division, was elected a vice president of Interchemical Corporation. Mr. Ault

Bromwell Ault elected Vice President Interchemical Corporation.

was formerly president of the Ault & Wiborg Corporation, joined IPI as Eastern division manager in 1931 and was made president in 1937. Mr. Ault will continue an active interest in the printing ink business of the company, as well as being principally concerned with general administration duties in Interchemical.



R. W. Smith, Chicago, Appointed IPI Divisional President.

R. W. Smith, IPI vice president in charge of the Western district for the past 12 years, has been appointed to the post of president of the IPI Division. Mr. Smith joined IPI shortly after its formation in 1928. He will make his headquarters at the New York offices in the Empire State Building.

F. Jack Jeuck, former manager of the Chicago IPI factory, has been promoted to the post of divisional vice president vacated by Mr. Smith. W. S. Ruxton moves from Chicago Branch Manager to sales manager for the Western district.

Carlton Mellick has been placed in charge of typographic press sales and service in the New York territory for the Miehle Printing Press and Manufacturing Co. He succeeds E. J. O'Hayer, vice president, who has represented Miehle in New York for 32 years. Mr. O'Hayer will continue in an advisory capacity with the company. Mr. Mellick first came to the company in 1929 and had experience in several departments in the factory and in a number of sales territories before becoming attached to the New York office in January 1929. He now returns to the Miehle Company after two years of absence during which he served WPB and later as sales manager with the Fred Goat Co., Inc.

Robert R. Zisette, general sales manager of SKF Industries, Inc., Philadelphia manufacturers of ball and roller bearings, announces the appointment of Walter C. Ahlers as Detroit District Manager to succeed Robert H. Hirsch, resigned. Mr. Ahlers has held the position of assistant district manager of the Detroit office for a number of years.

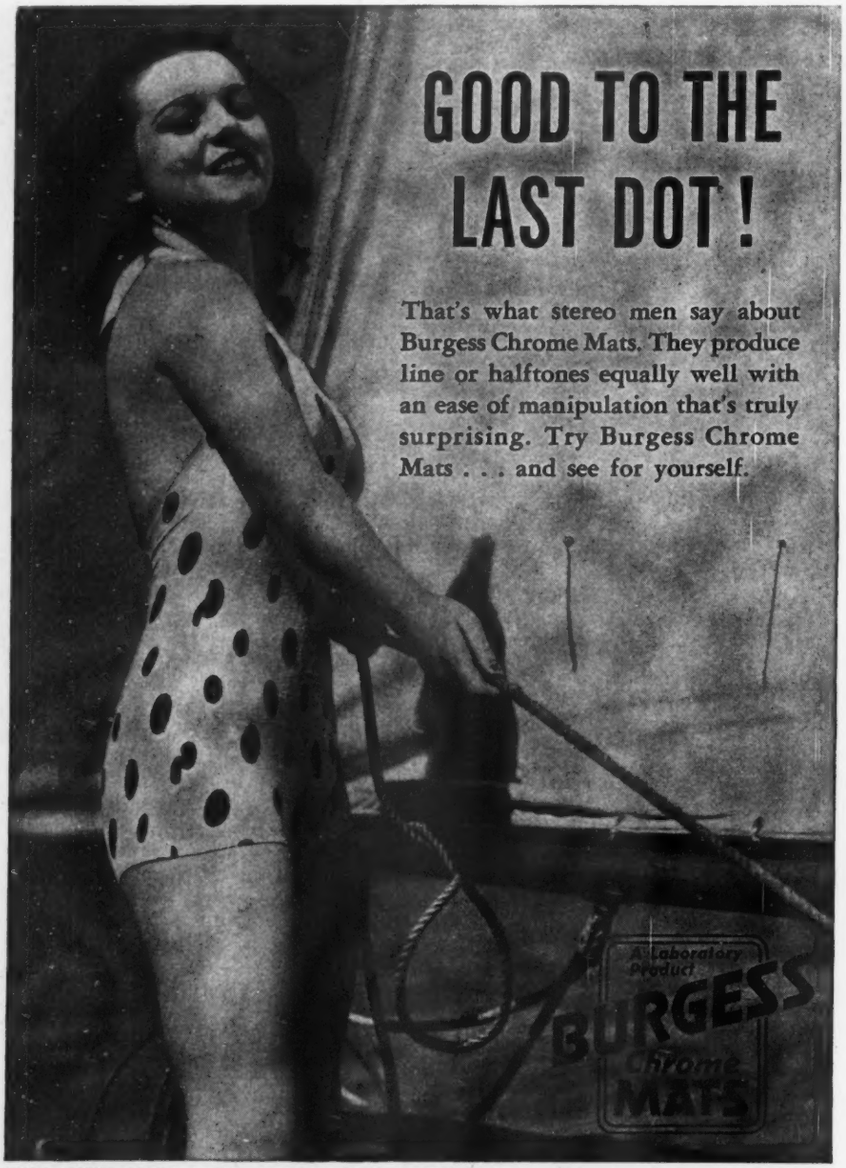
Equipment Will Not Be Obsoleted Over Night

IN addressing the February annual meeting of the National Association of Photolithographers in Chicago, Louis R. Beck, Harris-Seybold-Potter Sales Promotion Manager, frankly discussed the subject of what the postwar lithographer may expect in new offset press equipment. "No Alladin's lamp", said Mr. Beck, "will be rubbed to revolutionize lithography, or any other industry. It is obvious that no new equipment will appear that will obsolete everything in use over night. An important factor, however, will be the greater utilization of the things we already know about lithography.

"It is a safe assumption that in the years following the war, new press equipment will be available, and that new improvements will come. But it does not seem logical that any new equipment is going to revolutionize any industry the day after the war is over. Developments probably will be gradual over a period of some time, making use of the new things and the good things that will come out of advancements made during the war. Press developments, too, are bound to be dependent upon improvements in allied products.

"Any consideration of new equipment must be guided by common sense and practicalities. Ability and willingness of the market to absorb a new development is also a factor. One's own knowledge of offset-lithography will indicate the likely developments, and what direction they are liable to take."

Louis R. Beck tells NAPL meeting about postwar offset-lith press equipment. "It does not seem logical," said he, "that any new equipment is going to revolutionize any industry over night."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That's what stereo men say about Burgess Chrome Mats. They produce line or halftones equally well with an ease of manipulation that's truly surprising. Try Burgess Chrome Mats . . . and see for yourself.
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Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

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Pacific Coast Representative

RALPH LEBER CO. 426 Polson Bldg. SEATTLE, WASH.

Establishes Used Machinery Division

The Harris-Seybold-Potter Company announces the establishment of a Used Machinery Division under the management of Ren R. Perry. Headquarters of the division are at 343 South Dearborn Street, Chicago, Ill. Used presses will be rebuilt in Chicago under factory supervision by experienced press craftsmen.

Ren R. Perry is manager of HSP's new Used Machinery Division in Chicago.

Within the limitations of government regulations, Harris is instituting its Used Machinery Division, so that a limited amount of rebuilding of good press equipment may be undertaken. In instances where presses are not being used most effectively, the Harris Used Machinery Division will serve as a clearing house to transfer such equipment to points of maximum usage.

If it can be obtained, *Printing Equipment Engineer* will help you locate it.

TYPE METAL TOO

has its plasma

Everyone knows the dependable job blood plasma has done in saving the lives of our service men. But, did you know that type metal, too, has a dependable plasma — a plus metal plasma? Added to a type metal supply, according to the Imperial Plus Metal Plan, this accurately and scientifically determined tin-antimony plasma restores life to the metal by replacing those same ingredients lost in use. Let us give you the complete story on plus metals.

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MORLEY TRUTONE MATS

PRETTY girls always stand a chance at popularity polls, and so do Morley Trutone Mats! They make a deeper, more lasting impression . . . give your illustrations and printing vivid clearness. Morley Trutone Mats get greater depth, reduce fracture at the molding machine . . . are more durable in the casting box. No wonder they're a winner!

THE MORLEY COMPANY

PORTSMOUTH, NEW HAMPSHIRE

WE ARE PROUD TO ANNOUNCE THAT OUR "E" FLAG NOW CARRIES A WHITE STAR FOR CONTINUED MERITORIOUS SERVICE ON THE PRODUCTION FRONT

OHIO KNIVES

OK BLACK ARROW *Trimmer Knives*

A special heat treatment of the steel assures you of extra long life between grinds and a tough edge for all kinds of cutting.

OHIO KNIFE CO. • CINCINNATI 23, OHIO

Pacific-Southwest Mechanical Conference To Be Held In April

THE 1944 session of the Pacific-Southwest Mechanical Conference will be held in Los Angeles, April 22 and 23, at the Elks Club. One of the outstanding features will be a general get-to-gether of the mechanical executives and the advertising managers of the retail stores and advertising agencies. Advertising managers of the daily newspapers will also be guests of the conference. A general discussion of advertising problems will be a feature of the Saturday night meeting. It is expected that many of the troubles will be ironed out and a better understanding between these important groups will result.

The publishers of the four daily newspapers of Los Angeles, the *Times*, *Herald-Express*, *Examiner* and *Daily News*, together with the publisher of the Hollywood *Citizen* and the *Downtown Shopping News* of Los Angeles, will be hosts at the luncheon on Saturday.

At the 1943 conference a new office was created, that of vice president from the northern part of California. Ira Stuck of the San Francisco *Shopping News*, was elected to this office. He has proven a good choice.

It is intended at this session to start the ball rolling to organize a Pacific coast conference with several district conferences to meet between the main coast sessions.

One of the most comprehensive programs in the history of the Pacific-Southwest conference is being arranged, including speakers, educational moving pictures and round table discussions, On the program committee are: Rex Light, Los Angeles *Herald-Express*, president; Jerry Bolman, Los Angeles *Shopping news*, secretary; Fred Moyer, Los Angeles *Daily News*, vice president, all of the southern district; Chas. Webb, Los Angeles *Times*; Art Stanley, Los Angeles *Daily News*; Chas. Ruhmland, Glendale *News-Press*; L. M. Richardson, Los Angeles *Herald-Express*; Earl Leavitt, Culver City *Star-News*; Harold Winn, Hollywood *Citizen*, and W. Stanfield, Los Angeles Daily *News*. Ira Stuck, San Francisco *Shopping News*, also has been active in the arrangements.

Pennsylvania Mechanical Conference on April 10-11

Officers of the Pennsylvania Newspaper Publishers' Association voted recently to hold a Mechanical Conference at the Penn-Harris Hotel, Harrisburg, Monday and Tuesday, April 10-11. Lester H. Butler, mechanical superintendent of the Harrisburg *Telegraph*, chairman of the PNPA Mechanical Committee, will be in charge of the program. The Association's 1944 Mechanical Committee was appointed by George J. Mead, Erie *Daily Times*, and is made up of the following members: Lester H. Butler, chairman; S. D. Evans, Lebanon *News-Times*; George C. Stevens, Scranton *Times*; R. R. Cranmer, Williamsport *Grit*; D. O. Nelson, Altoona *Mirror*; D. Philip Young, York *Dispatch*; M. L. Detwiler, Lancaster Newspapers, Inc.; N. DeWitt Ray, Indiana *Evening Gazette*; Edward Case, *Valley Daily News*, Tarentum; M. T. Alderman, Sharon *Herald*; Joseph B. Breslin, Bethlehem *Globe-Times*; N. M. Fellman, Chester *Times*, and R. W. Keiper, Johnstown *Tribune & Democrat*.

Technical Literature

Vibrators for Various Duties

In addition to its line of three sizes of "Vibrating" Paper Joggers for use in printing plants, Syntron Company has now published a four page illustrated bulletin. In this bulletin are described the seven sizes of Syntron vibrators for various industrial uses, in sizes up to the V-500 which will vibrate bins with a capacity up to 20T, for coal bunkers, concrete forms, table packers, etc.

Elmer D. Manning, Minneapolis Linotype operator, has joined the Midwest agency staff of the Linotype Company. He spent some time at the Chicago office familiarizing himself with company policy and routine.

"FLECTO"

GUMMED BACKING FELT

Recommended by Stereotypers everywhere. Coated with glue that will not slip or leave the matrix under heat. Tears easily. Made in gauges .025, .030 and .035—Sheets 18 in. by 24 in., and gauges .040, .045, and .050—Sheets 18 in. by 22 in. Cut into strips without charge.

"TRUE-MOLD"

CORK MOLDING BLANKETS

Better molding with "MATCHED" sets. Order 2 or 100—they will be matched in all their qualities. Each blanket has been scientifically tested and graded. We can furnish HARD & EXTRA HARD (Special) blankets that are matched in weight and density.

Free samples on request — Send for latest catalog on newspaper supplies

EASTERN NEWSPAPER SUPPLY

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Handbook for Pressmen

BY FRED W. HOCH

This is a practical technical discussion of all platen and cylinder press operations in the commercial pressroom. The language used by the author is *your* language—the text is written simply and pertains to the operations actually performed in the pressroom.

To give an idea about the contents of the book we quote some of the chapter titles:

Methods of Line-up	Overcoming Offset
Presswork	Workups—Cause and Remedy
Makeready, Platen Presses	Slurs—Cause and Remedy
Makeready, Cylinder Presses	Repairing Plate Batters
Overlays and Makeready	Ink
Close Register	Color Mixing and Matching
Setting the Rollers	Metallic Inks

Some of the more unusual operations to many pressrooms are covered by the author in the following chapters:

Printing Water Color Jobs	Details of Embossing
Two Colors on One-Color Press	Hot-Plate Embossing and Paneling
Patent Base Speeds Imprint Jobs	Gum Label and Embossed Seal Printing
Printing on Cellophane	Die-Cutting Methods
Printing Facsimile Letters	The Stencil Screen Process

And much other valuable pressroom information. This book is bound in brown cloth, contains 236 pages, 6 in. by 9½ in., is well illustrated with line diagrams and a number of charts.

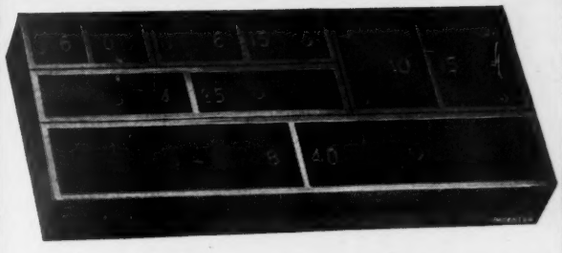
Price $3 per copy

Because of the small handling margin please enclose cash with order.

Printing Equipment *Engineer*

1276 West Third St.
Cleveland 13, Ohio

YOU CAN SAVE LOCK-UP TIME WITH—



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Labor-Saving IRON FURNITURE

● Use the Furniture with the "VELVET EDGES". No sharp corners to get dented, bumped or overhung. No cut or scratched fingers . . . means faster lock-up time. CHALLENGE IRON FURNITURE is strong, light, easy to handle. Raised figures on each piece show the pica size at a glance. Range of standard sizes from 2x4 to 10x70 ems pica. Write today.

1893 50TH ANNIVERSARY 1943

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473

THE CHALLENGE MACHINERY CO.

Main Office and Factory: GRAND HAVEN, MICH. ★ Eastern Sales Office: 50 Church St., NEW YORK

WPB Notes

(Continued from Page 32)

wooden and paperboard); cable, fiber; cans; cases, packing; containers (glass, metal, and wood; caps and closures for such containers); cooperage; cooperage stock (staves, headings, and hoops); cordage; crates; drums (shipping); excelsior; gummed cloth tape; rope; tin cans.

28. Production of Communication Equipment.—Radios and radio equipment; radar; telephone, telegraph, cable television, signalling apparatus; electrical sound equipment; vinylite transcriptions; telautograph.

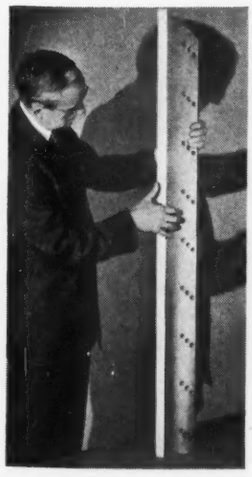
29. Communication Services.—Magazines of general circulation which are devoted primarily to the dissemination of public information; newspapers and news syndicates; military, naval, and technical charts and maps, instructional and technical manuals, and training literature; production of motion pictures (including technical and vocational training films for the Army, Navy, and war production industries); motion picture film processing; news reels; development of sensitized film; protective signal systems which supplement fire and police protection to military, public, and private industrial and commercial establishments; radio broadcasting; radio communications (radio-telephone and radiotelegraph); cable service (land or submarine); telegraph; telephone; Television; production for essential activities of continuous forms with or without one-time carbon; production for essential activities of snap-out types of forms interleaved with one-time carbon, and produced on rotary equipment; and production of sales-book-type forms contracted for by governmental agencies.

35. Technical, Scientific, and Management Services.—The supplying of technical, scientific and management services to establishments engaged in war production; union-management negotiation services; publication of technical and scientific books and journals; and the services of Federal Reserve System district banks and branches (does not include services of member banks of the Federal Reserve System).

Fluorescent Lighting Fixture Committee Meets

THE effect upon the fluorescent lighting fixture industry of possible relaxation of restrictions on the use of metal in its products was reviewed by members of the named industry advisory committee at their recent meeting with government officials in Washington, the War Production Board reported on February 14. Other topics discussed at the meeting were the supply of fluorescent lamps for replacement and new fixtures, and the ballast and transformer situation.

The demand for small transformers



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needed for combat equipment is very heavy, the committee was informed. These transformers and those used for fluorescent lighting fixtures are made by the same manufacturers, and production cannot be increased substantially because of the limited supply of manpower with the necessary skill to make either type. These factors limit the supply of transformers and ballasts for lighting fixtures.

Fluorescent lamps are available in sufficient quantities to take care of demand for replacements and for new fixtures, provided that the production of new fixtures continues at the present rate. But any rapid large-scale increase in lamp production is not possible because of the scarcity of certain components and the limitations imposed by present production facilities.

The use of substitute materials as a wartime measure has resulted in many cases in inferior products, and WPB is making studies relating to future adjustments in limitation orders which now require the use of substitute materials, the committee was informed. The lighting and fixtures section of the building material division has been asked to present data pertinent to these studies.

Conservation Order M-53 Amended

ON February 9, the War Production Board announced that it had amended Conservation Order M-53 to permit applications to be made for allocations of phenolic resins for use in printing inks.

WPB officials explained that restrictions on the use of phenolic resins for printing inks had tended to increase demands for Malayic resins, the supply of which is now extremely small.

The crux of the amended order is as follows:

(b) *Restrictions on use.* In the manufacture of printing ink, no producer shall:

(3) Use any glycerol phthalate resins for the production of any gloss ink, non-scratch ink or gloss overprint varnish: Provided, however, That nothing contained in this paragraph (b) (3) shall restrict the use of varnishes containing such resins in the inventories of ink producers, printers, or manufacturers of varnishes for the printing ink industry, where such varnishes were manufactured prior to March 30, 1942, for use in the manufacture of printing ink.

Rules for Granting Ex-Quota Paper More Stringent

WPB's Printing and Publishing Division recently announced factors which will be considered in handling appeals for additional print paper under magazine, book and newspaper limitation orders during 1944.

Conditions which will be considered are set out in revised supplements to the three orders, covering future appeals for additional paper, and include the following:

Magazines (L-244): Unusual seasonal variations in publishing schedules requiring a redistribution of quarterly quotas; increased need for religious or instructional publications required by the Armed Forces; or any unforeseen, unusual, extraordinary, or emergency conditions which may constitute undue hardships.

Books (L-245): Establishment of quotas for occasional publishers who do not use paper every year and who used none in 1942; as well as need for Armed Forces publications, or any other unusual conditions similar to the magazine situation.

Newspapers (L-240): Extraordinary growth of population in newspaper trading areas since January 1, 1943, requiring additional paper to maintain adequate service in communities, or other unforeseen circumstances which may be considered as undue hardships.

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FOR SALE—30 in. x 40 in. Vallete litho darkroom camera complete with two copyboards, one operating on camera rails, other on separate structure; positive holder; acid-blast focusing glass; steel focusing tape; Douthitt diaphragm control coupled to 80 c.m. Zeiss Apo-Planar lens. Smaller copy board on rails is 35 in. x 35 in. and 2-motor control from darkroom regulates forward-backward and up-and-down movement. Larger board has face 8 feet x 5 feet, with steel reinforced supporting structure measuring 14 feet x 5 feet. This larger board is also fully automatic, vertical and lateral adjustments being controlled by push buttons within dark room. This larger board is equipped with magnets whereby original steel lofts may be used as direct copy in case camera is used in template work. Lateral movement is 3 feet to either side of center line; vertical range is 1½ feet above or below center line. All electrical equipment is AC 60-cycle.

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be made to publishers who do not practice economical usage of paper or who could meet requirements through paper conservation, it was pointed out.

All three supplements specifically bar appeals on a number of counts which were considered last year, such as adjustment of base periods for those entering into publishing commitments prior to issuance of the orders, those who conserved paper voluntarily during the base period, or had their publications suspended during the base period because of strikes, mechanical breakdowns, or similar conditions. These adjustments, already made, eliminate the need for future appeals based on such grounds.

L-226 Amended

ON February 16, the War Production Board made minor changes in Order L-226 related to Printing and Publishing Machinery, Parts and Supplies. The amended order revises for the form numbers used in connection with applications for equipment. Of principal interest to the printing industry is the requirements for obtaining an approved order, in which it is stipulated that any person seeking an approved order for graphic arts machinery shall file Form WPB-1319 in quadruplicate with Printing and Publishing Division of the War Production Board.

Appeals from the provision of Order L-226 shall be filed on Form WPB-1477 (formerly PD-500) with the Printing and Publishing Division.

Filing WPB-541 Applications

ACCORDING to a WPB administrative order, all WPB-541 applications (formerly PD-1a) are to be filed with the nearest WPB field office by the applicants for preliminary examination to make sure that they have been filled out properly. Field offices are empowered to pass upon applications involving not more than $2500 worth of material and equipment. All WPB-541 applications involving more than $2500 worth of material or equipment are to be forwarded by the field office to the War Production Board, Washington, D. C., for final action.

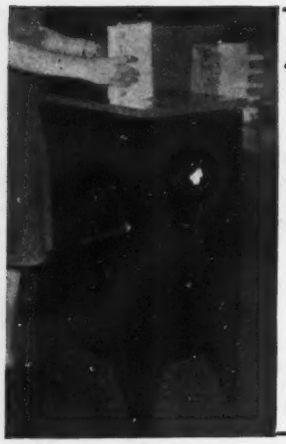
The Print Paper Situation—March 1

IF NEW and unpredictable demands for paper and paperboard are not increased materially and possible improvements in pulpwood production are realized, the paper situation should not deteriorate further, and there may be some improvement in the second half of 1944, Harold Boeschenstein, acting director of the War Production Board Forest Products Bureau, told the Newspaper Industry Advisory Committee at its meeting in Washington on March 1.

"However", Mr. Boeschenstein said, "we cannot guarantee now that the military paper and paperboard requirements will not be increased during the latter part of 1944, nor can we predict at this time what effects such increased demands might have on the future supply and usage of paper."

The industry was urged to extend its efforts in fostering the collections ol waste paper which is improved but stilf well below needs, and the members of the committee were advised that the WPB would continue its efforts to increase the production of wood and pulp in every way.

Out of 134 newspaper appeals requesting 15,766 tons of paper for the first quarter in 1944, the WPB Appeals Board granted 70 requests, aggregating 4963 tons. The divisions recommendations were for 3628 tons. The board denied 55 requests, leaving 9 cases undecided, WPB officials stated.



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Bronze Powder Manufacturing Prohibitions

A STATEMENT explaining the requirements controlling manufacturers, distributors and users of flake type bronze powder has been issued by WPB with respect to the manufacture of powder for the printing industry, WPB states:

"Conservation Order M-9-c, as amended January 22, 1944, prohibits the use of copper or copper base alloy (a) in the manufacture of any powder except for non-decorative uses, or (b) for the production of any item which has been included on the Combined List of Order M-9-c. This provision of the Order does, for example, prohibit the use of copper or copper base alloy in the manufacture of powder (a) for use by the printing and publishing industry, or (b) for the production of paint other than shipbottom paint. Flake type bronze powder may, as a matter of fact, be produced only for use in making non-decorative decalcomanias, shipbottom paint and drift signals.

"It should be noted that preference ratings and allotment symbols do not constitute authorization to manufacture or deliver flake type bronze powder, unless such manufacture or delivery is already permitted by the terms of Orders M-9-c and M-9-c-3. Appeals to manufacture or deliver flake type bronze powder must in all instances originate from the manufacturer or holder."

Must Furnish Copies of Orders

ON February 29 it was announced by WPB that all publishers of newspapers consuming 25 or more tons of newsprint per quarter are required hereafter to furnish the Printing and Publishing Division of the War Production Board with copies of their orders for newsprint, regardless of whether the orders are placed in this country or elsewhere, under an amendment to the Newspaper Limitation Order L-240, issued today.

Such publishers are also required to file with the WPB before March 15, copies of all orders placed by them since January 1, 1944.

Other provisions of the order affect certain established WPB policies, including the basis for determining whether a publisher issues separate newspapers or merely editions of the same newspaper; fixing the permissible inventory on the basis of average daily rate of consumption during the first six months of 1944 rather than the current calendar quarter; covering newsprint shipments by water, and excluding from inventories savings carried over from previous quarters.

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One thought that many concerns have found helpful in stepping up the intake from their Payroll Savings Plans is this. In many cases the Treasury Representative in a plant has been able to point out the fact that during *Loan Drive periods* the employees have found it possible to spare much more than they had counted on when setting up their original subscription, and that—*when properly approached*—a very substantial fraction of such employees will decide they can well afford a distinct increase in their current Payroll Savings Plan.

Talk this over with your Treasury Representative—it offers important possibilities when correctly handled. And again accept the Treasury Department's congratulations for your fine work in helping to put over the 4th War Loan.

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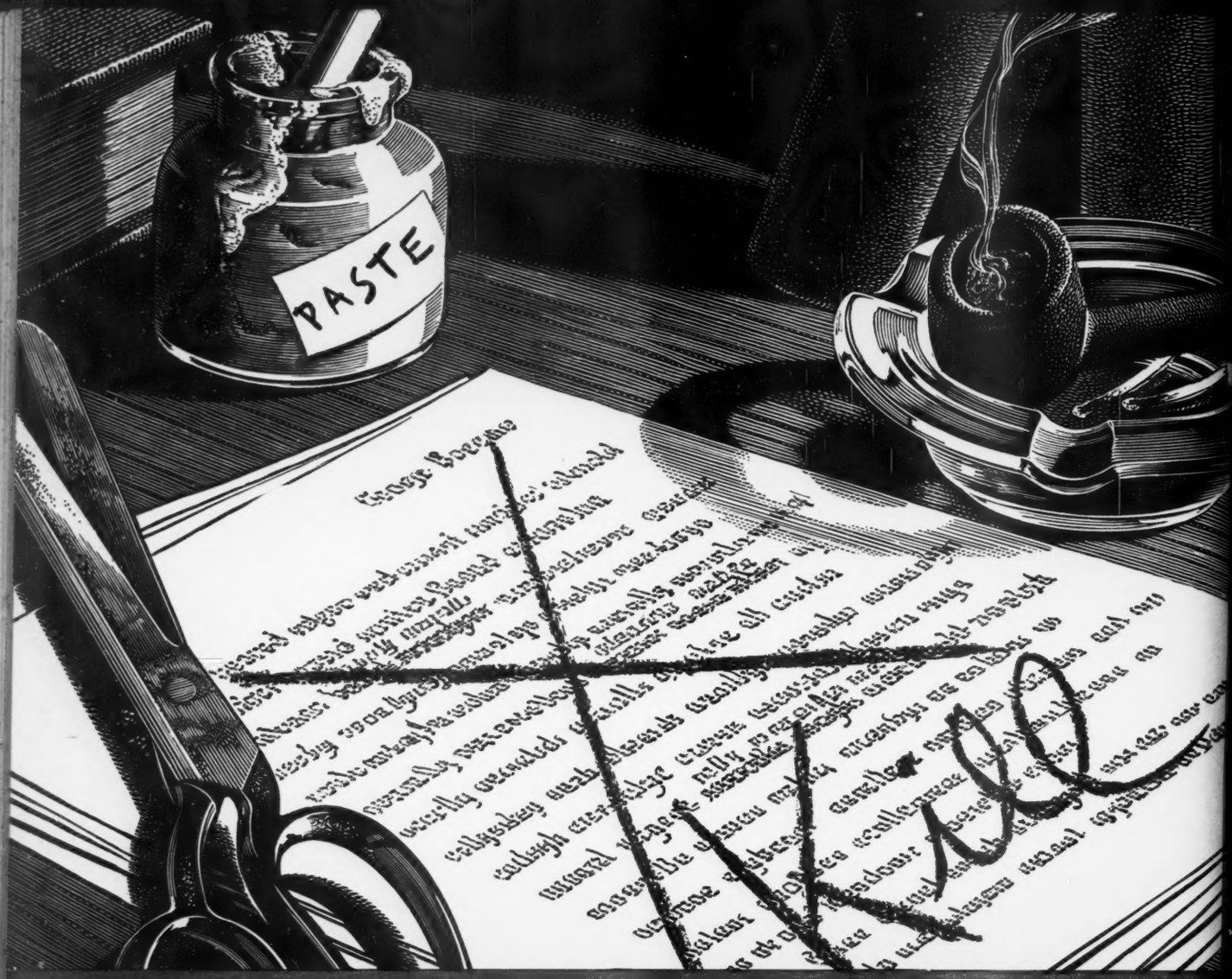

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» But regardless of publishers' thinking, they have abided even by suggestions. Government and the military are receiving fullest cooperation from the men and women who, by training, are accustomed to dig out and know the news...and who, by instinct, strive to keep the people fully informed. » America has a right to expect that full freedom of the press will be restored—when removal of possible hazards to the safety of our armed forces ends the need for censorship. For a COMPLETELY *free press* is the only safe foundation on which government of the people can build all other freedoms.

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